2/16/95
M Conner

SN 5664

In Reply Refer To: MS 5232

MAR 06 1995

Koch Gateway Pipeline Company
Attention: Mr. Daniel Stecklein
Post Office Box 1478
Houston, Texas 77251-1478

Gentlemen:

Your letter dated November 11, 1994, requests approval to abandon in place 26,002 feet (4.92 miles) of 6 5/8-inch pipeline designated as Segment No. 5664 and to relinquish in its entirety, Right-of-Way Grant OCS-G 4275, associated therewith. The subject pipeline originates at Delmar Operating Inc.'s Platform A in Block 146, crosses Block 147, and terminates at Century Offshore Management Company's Platform A in Block 148, all in the South Timbalier Area.

Pursuant to 30 CFR 250.4(b), approval is hereby granted to abandon the above-described pipeline, and in accordance with 30 CFR 250.159(c)(9), the requirement that the pipeline be removed is hereby waived. However, in the future should it be determined that this abandoned pipeline constitutes a hazard to navigation or commercial fishing operations or unduly interferes with other uses of the Outer Continental Shelf, Koch Gateway Pipeline Company (Koch Gateway) shall be required to remove it.

Pursuant to 30 CFR 250.150(b), the relinquishment of the right-of-way grant associated with the pipeline that is to be abandoned in place is hereby accepted effective February 2, 1995, subject to Koch Gateway completing the abandonment operations by December 31, 1995. Additionally, Koch Gateway shall within 30 days after completion of the abandonment, submit a report to this office which includes the date the abandonment was completed and verifies that the abandonment was completed as approved.

Sincerely,

(Orig. Sgd.) Kent E. Stauffer

Donald C. Howard
Regional Supervisor
Field Operations

bcc: 1502-01 (P/L OCS-G 4275) w/enclosures (MS 5232)
1502-01 (P/L OCS-G 4275) (microfilm) (MS 5033)
MS 5421
MS 5250
MS 5232 (Carto) w/plat

MConner:2/16/95:Koch.664

3/8/95

G4275

UNITED STATES GOVERNMENT
MEMORANDUM

2/3/95

To: Leasing Activities Section, Adjudication Unit (MS 5421)

From: Petroleum Engineer, Pipeline Unit, Plans and Pipeline Section, Field Operations, GOM OCS Region (MS 5232)

Subject: Adjudication of Pipeline Right-of-Way Abandonment and Relinquishment

OCS-G 4275 Segment No. 5664 V

The subject request is attached for your adjudication. If you have any questions regarding this matter, please contact Mr. Mike Conner at extension 2544.

Mike Conner

Attachments

Application dated Nov 11, 1994 w/attach Rec'd 2/2/95

_____ Please initial and return if request meets all necessary criteria.

G-4275
SN 5664

KOCH

KOCH GATEWAY PIPELINE COMPANY

Kathy
Verbal approval given
to
on 2/16/95

November 11, 1994

United States Department of Interior
Mineral Management Service
Gulf of Mexico OCS Region Supervisor
1201 Elmwood Park Drive
New Orleans, La. 70123-2394

Attention: Mr. Mike Conner

Re: Abandonment of Koch Gateway Pipeline Company
6 Inch Pipeline Facilities in South Timbalier
Area of Offshore Louisiana (MMS #G-4275)

Gentlemen:

The platform 146A in South Timbalier area of offshore Louisiana will be removed by Conoco Inc. around May 1, 1995. Koch Gateway Pipeline Company (formerly United Gas Pipe Line Co.) has a 6 inch gas pipeline that departs platform 146A and terminates at platform 148A (MMS #G-4275) which will need to be abandoned due to the platform 146A removal. The wells on platform 146A are no longer productive and removal of the platform is required.

We would request Mineral Management Service to approve the proposed abandonment of the 6 inch pipeline. The 6 inch pipeline will be cut on the sea bed some 10' from the platform riser and some 10' above the sea level for both platform 146A and 148A. This would be approximately 135 feet of 6 inch pipeline removed at each end of the pipeline at each platform. The present length of the pipeline is 26,272 feet and the remaining length after removals will be 26,002 feet. The ends of the pipeline on the seabed after the pipe removal will be plugged and buried with a minimum of 3 feet cover as per CFR 30 Part 250 Subpart "J". The abandoned pipeline will be pigged with any resident liquids removed and transported from location to an approved disposal site. After pigging is complete, the pipeline will be injected with inhibited seawater. We would request the Right-of-Way grant for this pipeline be terminated with the Approval to Abandon. A copy of the Mineral Management Service Map ST-22 that shows the location of the pipeline is attached.

FEB 02 1955
FIELD OPERATIONS

600 Travis Street ▪ P.O. Box 1478 ▪ Houston, Texas 77251-1478 ▪ 713/229-4123 ▪ 800/890-0205

We are also attaching documentation regarding the sale of these facilities from United Gas Pipe Line Company to Koch Gateway Pipeline Company to verify Koch's ownership. It is our understanding that Mineral Management Service has Koch as-built drawings on file for these facilities. However, should you need additional drawings or any other information, please contact Mr. Jim Naico with Koch at (713) 229-5173 or Mr. Doug North with Facilities Engineering at (713) 688-4544.

Sincerely,

KOCH GATEWAY PIPELINE COMPANY

Daniel J. Stecklein
Vice President

DJS/rh
Attachments

Name of Entity: KOCH GATEWAY PIPELINE COMPANY

Group: Hydrocarbon
Incorporation - Date: 37/09/03

Company No.: 160
Place: Delaware
State ID#:
Fed ID#: 72-0340700

Annual Meeting Date: April, 1st Thursday

Former name(s): United Gas Pipe Line Company (93/08/24)

Registered Agent: The Corporation Trust Company
1209 Orange Street
Wilmington, Delaware

Stock Authorized: 1000 common shares

Stock Issued: 1 share to Koch Industries, Inc.

Directors: B. R. Caffey, C. C. McCampbell, Rolf A. Gafvert

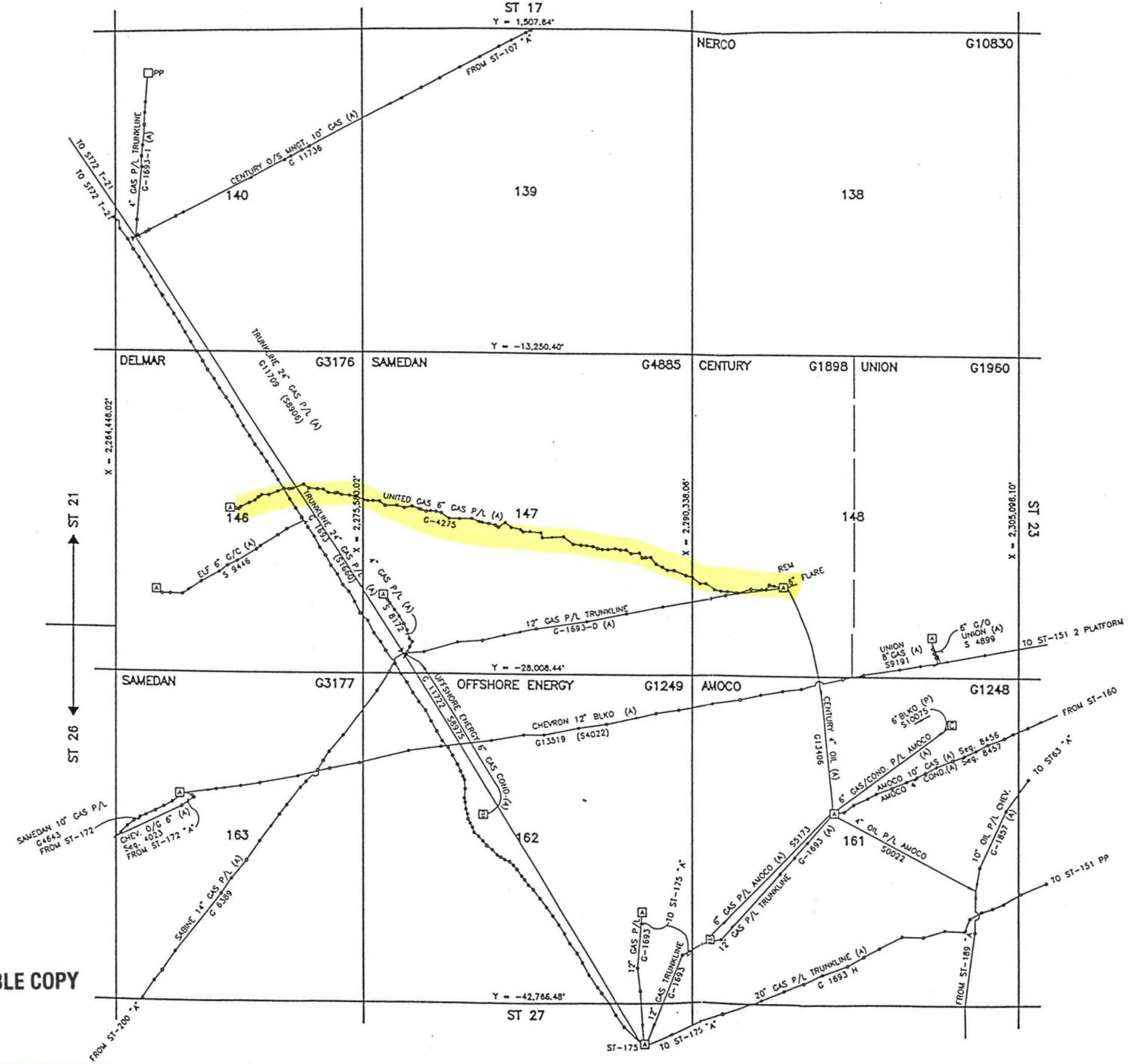
Officers:

President	Rolf Gafvert
Vice President - Trans Serv.	Chris Fischer
Vice President/Trans-Mktg.	Mark DeVries
Vice President - Trans Serv.	Steve Green
Vice President - Marketing	Michael E. McMahon
Vice President	Daniel J. Stecklein
Secretary/General Counsel	William C. Pitcher
Assistant Secretary	Robin Schwenke
Assistant Secretary	Robin E. Kluge
Assistant Secretary	Donna F. Bohn
Assistant Secretary	Philip D. Wright
Treasurer	C. J. Nelson
Assistant Treasurer	M. D. Wilds
Assistant Treasurer - Tax	G. E. Hartwig

Foreign Qualifications: AL 37/09/13; FL 87/06/25; KS 93/02/11; LA 37/09/03; MS 37/09/03; NM 81/04/14; OK 81/03/12; TX 37/09/09

Attachment:

Revised: 1994/02/07



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LEGEND:
(A) AS-BUILT
(P) PROPOSED

NOTE:
This map has been digitized using information obtained from the M.M.S. with the best available source data at the time of preparation. The M.M.S. and BCI do not guarantees the accuracy of this map nor do they assume any liability or responsibility for any reliance on this map. Anyone using this map does so at their own discretion and risk.

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERAL MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION

PIPELINE MAP
SO. TIMBALIER AREA

SCALE
2,000' 1,000' 0 2,000' 4,000'

Drawn By: CN
Dated: AUG. 29, 1991

Map No.: ST-22

RVD.-C-SEP.13/94.

SN 5664

United States Department of the Interior

MINERALS MANAGEMENT SERVICE
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

In Reply Refer To: MS 5421
N. O. Misc. No. 178

July 11, 1994

ACTION

Koch Gateway Pipeline Company — Right of Way

CHANGE OF NAME RECOGNIZED

On June 9, 1994, there was filed in this office for approval evidence of change of name from United Gas Pipe Line Company to Koch Gateway Pipeline Company, effective August 24, 1993.

In view of the evidence submitted, the change in ownership as to the pipeline rights-of-way listed below is recognized and the records so noted:

OCS-G NO.	OCS-G NO.	OCS-G NO.
0641	3624	4050
0642	3720	4051
1704	3824	4275
1704-A	3826	4285
1709-D	3832	4286
3427	3834	4302
3450	3882	4358
3456	4013	4636
3612	4020	5148
	4036	

Chris C. Oynes

Chris C. Oynes
Acting Regional Director

cc: Lessees and Associates
Qualification File (N. O. Misc. No. 178)
Case Files

UNI) STATES DEPARTMENT OF IE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION
IMPERIAL OFFICE BLDG., 3301 N. CAUSEWAY BLVD.
P. O. BOX 7944
METAIRIE, LOUISIANA 70010

504-837-4720

SN 5664

In Reply Refer To: LE-3-1
OCS-G 4275

October 26, 1983

SN 5664

ACTION

United Gas Pipe Line Company	:	Pipe Line Right of Way
	:	
	:	Date of Permit: 3/6/80; Am. 4/22/80
	:	
	:	Decision Requesting Proof of Construction Dated:
	:	
	:	Proof of Construction Received: 6/24/83

Proof of Construction Accepted

The above-captioned grantee has submitted the evidence required by the law and regulations 30 CFR 256.95(a). The proof of construction is hereby accepted and approved. Deviation from the original plat has been noted and new plat made a part of the record.

Because grantee has deviated from the approved right-of-way by ± 100 feet in Blocks 146 and 147, South Timbalier Area, United Gas Pipe Line Company must notify Conoco Inc., operator of lease OCS-G 3176 in Block 146, and Gulf Oil Corporation, operator of lease OCS-G 4885 in Block 147, to that effect. Return-receipt-cards or letters from the aforementioned operators evidencing proof of notice must be submitted to this office within sixty (60) days of receipt hereof.

John L. Rankin
Regional Manager

CERTIFIED MAIL NO. P13 1000402

OK on NAD 27
11/3/83

OK on PWQ
10/31/83 SHSR

UNITED GAS PIPE LINE COMPANY

UNITED ENERGY PLAZA • POST OFFICE BOX 1478
HOUSTON, TX 77001 • TELEPHONE (713) 229-4123

June 22, 1983

Minerals Management Service
P. O. Box 7944
Metairie, Louisiana 70010

ATTENTION AUTRY BRITTON

Dear Autry:

Attached pursuant to your request of June 21, 1983 are three copies of each of the following items:

OCS 40-50 (AFE 84-165): Temperature and Pressure Chart; Hydrostatic Test #5

OCS 40-51 (AFE 84-165): Temperature and Pressure Charts; Hydrostatic Tests # 6 and #7

OCS G-4275 (AFE 82-319): Temperature and Pressure Chart; Hydrostatic Log Sheet & Test

Please contact me at (713)229-5196 if I can be of any further assistance.

Sincerely,

Trudy Holmes

Trudy A. Holmes, Manager
Governmental Compliance

TAH/ssr

OCS-G 4275

Hydrostatic Testing Report
AFE 82-319

Hydrostatic Test No. 1

This test included all fabrication assembled at Steen's Machine Shop in Abbeville, La. Fabrication included two pig traps, a meter station, platform and riser piping for Conoco Block 146 "A" and Conoco Block 148 South Timbalier, Offshore La.

Hydrostatic Test:

Test began at 1:15 a.m. on June 7, 1980 at 2177 psig.
Test ended at 1:15 a.m. on June 8, 1980 at 2160 psig.

The maximum test pressure for this test was 2180 psig, and the minimum pressure was 2160 psig.

Dewater:

Being fabrication, no dewater pigs were run. Valves were opened and test section allowed to drain dry.

Hydrostatic Test No. 2

This test included the already previously tested fabrication at Conoco Block 146 Platform "A" and the 6.625" pipeline from Conoco Block 146 to the 12° segment on riser at Conoco Block 148 South Timbalier, Offshore La. At 7:30 p.m. on July 12 Ingram started to fill the pipeline with water. A poly pig and a sizing pig was run ahead of fill water from block 148 to Block 146. Line was full and sizing pig along with the poly pig arrived at Block 146 at 1:45 a.m. Twelve gallons of Tret-o-lite KW-12 corrosion inhibitor was used in the pipeline.

Hydrostatic Test:

Test began at 10:50 a.m. on July 14, 1980 at 2160 psig.
Test ended at 10:50 a.m. on July 15, 1980 at 2160 psig.

The maximum test pressure for this test was 2160 psig and the minimum pressure was 2150 psig.

Dewater:

Dewatering poly pig left Conoco Block 148 at 12:45 p.m. on July 15 and arrived in the pig trap at Conoco Block 146 at 11:30 p.m. Water was discharged back into the Gulf of Mexico. Pig was run by an air compressor.

Testing Contractor

Hydrostatic Test No. 1 was conducted by:

C.S.I. Hydrostatic Testers Inc.
P. O. Box 51282
Lafayette, LA 70502

Hydrostatic Test No. 2 was conducted by:

Greene's Pressure Testing
P. O. Box 2905
Lafayette, LA 70502

United Gas Pipe Line Co. Inspectors:
Test No. 1 - K. L. Detillier
Test No. 2 - D. J. Mitchell

All tests were acceptable.

Charts and dead weight readings accompany this report along with a drawing showing test sections on as-built prints.

Prepared by

Daniel J. Mitchell

HYDROSTATIC TEST REPORT

UNITED GAS PIPELINE CO.
MULTIPILE SIZE - FABRICATION
STEEN'S MACHINE SHOP - ABBEVILLE

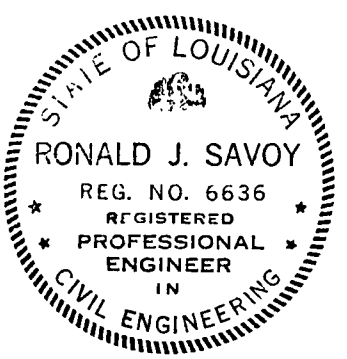
C.S.I. HYDROSTATIC TESTERS, INC.
LAFAYETTE, LOUISIANA

PRIME CONTRACTOR
STEEN'S MACHINE SHOP

DATE OF TEST
JUNE 6, 1980

REPORT CERTIFIED BY:

RONALD J. SAVOY, P.E.
VICE-PRESIDENT



A Hargett Company

July 14, 1980

Mr. H. Parkman
United Gas Pipeline Co.
P. O. Box 3280

RE: UNITED GAS PIPELINE CO.
MULITPULE SIZE - FABRICATION
JOB NO. 82-319
STEEN'S MACHINE SHOP - ABBEVILLE

Dear Mr. Parkman:

We have carefully reviewed and evaluated all data assembled from the hydrostatic test on UNITED GAS PIPELINE COMPANY'S subject line.

Upon completion of the fill of the line, a hydrostatic test was performed using approved engineering practices and procedures. Information detailed on the required test forms show conclusively that the pipeline is as safe as today's technology can produce.

From the test results it is concluded that UNITED GAS PIPELINE COMPANY has used the latest advanced scientific developments in the field of hydrostatic testing in compliance with all current state and federal safety regulations.

Yours very truly,

C.S.I. HYDROSTATIC TESTERS, INC.

Ronald J. Savoy, P.E.
Vice-President

STATE OF LOUISIANA
RONALD J. SAVOY
REG. NO. 6636
REGISTERED
PROFESSIONAL
ENGINEER
IN
CIVIL ENGINEERING

RJS/xxx

CSI Hydrostatic Testers, Inc.
P O Box 51282 Lafayette, Louisiana 70505 Phone 318/235-7567

C. S. I. HYDROSTATIC TESTERS

Hydrostatic Test Report

. BOX 51282, O.C.S. LAFAYETTE, LA. 70505

Company UNITED GAS PIPELINE CO.

Line Fabrication Multiple Location Abbeville Job No. 82-319 Length Fabrication ft.

Line Size Sizes O.D. W.T. Gr. Sta/M.P. to Sta/M.P.

Terrain Steen Machine Shop Soil Condition Dry

Fill began 6/6/80 at 6:30 ~~AM~~ P.M. Fill Completed 6/6/80 at 9:30 ~~AM~~ P.M.

Meter Reading: Beginning Gals., Final Gal.

Displacement: Theoretical Gal., Meas. Gal.

Gallons Required to increase pressure from P.S.I.G. to P.S.I.G. Gal.
PRESSURE PUMP MEASUREMENT

Exposed pipe ALL ft. General Contractor STEEN'S MACHINE SHOP

Fill water Temperature

TIME		Deadweight Pressure	TEMPERATURE OF			REMARKS
Date	Hour		Air	Pipe	Remote Earth	
6-6-80	10:25 PM	0				Start Pressure Up
	11:00	2175				At Test Pressure
	11:06	2164-2175				Repressure
	11:10	2163-2175				Change Deadweight Hose
	11:15	2171				Repressure
	11:20	2160-2175				Repressure
	11:25	2161-2175				
	11:37	2165				Bled Down/Repair D/W Hose
	11:45	0				Start Pressure Up
	11:50	2178				At Test Pressure
	12:00 AM	2169				
6-7-80	12:10	2101-2177				Repressure
	12:15	2169				Fix Leaking Hose
	12:23	2161-2173				Repressure
	12:30	2175				
	12:45	2166				
	12:48	2164				Bled Down/Replace D/W Hose
	1:05	60				Start Pressure Up
	1:15	2177				At Test Pressure
	1:20	2161-2176				Fix Leak - Repressure
	1:30	2161-2173				Repressure
	1:45	2171				

CSI Engineer James Roy Powell

Witness 1 James E. Steen

2

Field Approval for Pipeline Company

Insp.

Chief Insp. K. L. Detillier

C. S. I. HYDROSTATIC TESTERS

Hydrostatic Test Report

P. O. BOX 51282, O.C.S. LAFAYETTE, LA. 70505

Line Fabrication Location Abbeville Job No. 82-319 Length Fabrication ft.

Line Size _____ O.D. _____ W.T. Gr. _____ Sta/M.P. _____ to Sta/M.P. _____

TIME		Dead Weight Pressure	TEMPERATURE OF			REMARKS
DATE	HOUR		Air	Pipe	Remote Earth	
6-7-80	2:00 AM	2165				
	2:05	2161-2178				Repressure
	2:15	2173				
	2:30	2168				
	2:45	2163				
	2:48	2161-2177				Repressure
	3:00	2172				
	3:15	2168				
	3:30	2161-2178				Repressure
	4:00	2171				
	4:24	2161-2177				Repressure
	4:30	2167				
	5:00	2170				
	5:25	2162-2178				Repressure
	5:30	2176				
	6:00	2162				
	6:07	2161-2178				Repressure
	6:30	2171				
	7:00	2174				
	7:05	2179-2165				Bled Down
	7:25	2180-2160				Bled Down
	7:30	2166				
	7:40	2180-2160				Bled Down
	7:50	2180-2160				" "
	8:00	2180-2160				" "
	8:10	2180-2160				" "
	8:20	2180-2160				" "
	8:30	2180-2160				Bled Down
	8:40	2180-2160				" "
	8:45	2180-2160				" "
	8:55	2180-2160				" "
	9:00	2177				
	9:05	2180-2160				Bled Down
	9:15	2180-2160				" "
	9:20	2180-2160				" "
	9:30	2180-2160				" "

CSI Engineer JAMES ROY POWELL

Field Approval for Pipeline Company

Witness 1 James E. Steen

Insp _____

2 _____

Chief Insp K. L. Detillier

C. S. I. HYDROSTATIC TESTERS

Hydrostatic Test Report

P. O. BOX 51282, O.C.S. LAFAYETTE, LA. 70505

Line _____ Location Abbeville Job No. 82-319 Length Fabrication ft.

Line Size _____ O.D. _____ W.T. Gr. _____ Sta/M.P. _____ to Sta/M.P. _____

TIME		Dead Weight Pressure	TEMPERATURE OF			REMARKS
DATE	HOUR		Air	Pipe	Remote Earth	
6-7-80	9:35 AM	2180-2160				Bled Down
	9:40	2180-2160				" "
	9:50	2180-2160				" "
	9:55	2180-2160				" "
	10:07	2180-2160				" "
	10:30	2180-2160				Cloudy
	10:47	2180-2160				Cloudy - Bled Down
	11:00	2180-2160				Sunny - Bled Down
	11:12	2180-2160				Bled Down
	11:20	2180-2160				" "
	11:27	2180-2160				" "
	11:30	2180-2160				" "
	11:40	2180-2160				" "
	11:45	2180-2160				Bled Down
	11:55	2180-2160				" "
	12:05 PM	2180-2160				" "
	12:13	2180-2160				" "
	12:23	2180-2160				" "
	12:29	1280-2160				Bled Down
	12:34	1280-2160				" "
	12:36	1280-1260				" "
	12:45	2180-2160				" "
	12:53	2180-2160				" "
	1:12	2180-2160				Bled Down
	1:25	2180-2160				" "
	1:32	2180-2160				" "
	1:54	2180-2160				" " Cloudy Skies
	2:08	2180-2160				" " " "
	2:35	2180-2160				" "
	3:01	2180-2165				
	3:40	2160-2180				Repressured
	3:50	2160-2180				"
	4:01	2160-2180				"
	4:10	2180-2174				Bled Off / Sunny
	4:24	2160-2174				Repressured / Cloudy
	4:29	2160-2180				Repressured / Cloudy

CSI Engineer James Roy Powell

Field Approval for Pipeline Company

Witness 1 James E. Steen

Insp _____

2 _____

Chief Insp. K. L. Detillier

C. S. I. HYDROSTATIC TESTERS

Hydrostatic Test Report

P. O. BOX 51282, O.C.S. LAFAYETTE, LA. 70505

Line _____ Location Abbeville Job No. 82-319 Length Fabrication ft.

Line Size _____ O.D. _____ W.T. Gr. _____ Sta/M.P. _____ to Sta/M.P. _____

TIME		Dead Weight Pressure	TEMPERATURE OF			REMARKS
DATE	HOUR		Air	Pipe	Remote Earth	
6-7-80	4:36 PM	2160-2180				Repressured / Cloudy
	4:47	2160-2180				" "
	4:56	2160-2180				" "
	5:08	2160-2180				" "
	5:36	2160-2180				" "
	5:44	2160-2180				Repressured / Cloudy
	5:52	2160-2180				" "
	6:02	2160-2180				" "
	6:26	2160-2180				" "
	6:36	2160-2180				" "
	6:44	2160-2180				Repressured / Cloudy
	6:52	2160-2180				" "
	6:59	2160-2180				" "
	7:05	2160-2180				" "
	7:12	2160-2180				" "
	7:18	2160-2180				Repressured / Cloudy
	7:30	2160-2180				" "
	7:37	2160-2180				" "
	7:44	2160-2180				" "
	7:50	2160-2180				" "
	7:58	2160-2180				Repressured / Cloudy
	8:04	2160-2180				" "
	8:10	2160-2180				" "
	8:18	2160-2180				" "
	8:24	2160-2180				" "
	8:30	2160-2180				Repressured / Cloudy
	8:35	2160-2180				" "
	8:43	2160-2180				" "
	8:50	2160-2180				" "
	9:00	2160-2180				" "
	9:09	2160-2180				Repressured / Cloudy
	9:18	2160-2180				" "
	9:25	2160-2180				" "
	9:37	2160-2180				" "
	9:43	2160-2180				" "
	9:56	2160-2180				Repressured

CSI Engineer James Roy Powell

Field Approval for Pipeline Company

Witness 1 James E. Steen

Insp _____

2 _____

Chief Insp. K. L. Detillier

C. S. I. HYDROSTATIC TESTERS

Hydrostatic Test Report

P. O. BOX 51282, O.C.S. LAFAYETTE, LA. 70505

Line _____ Location Abbeville Job No. 82-319 Length Fabrication ft.

Line Size _____ O.D. _____ W.T. Gr. _____ Sta/M.P. _____ to Sta/M.P. _____

TIME		Dead Weight Pressure	TEMPERATURE OF			REMARKS
DATE	HOUR		Air	Pipe	Remote Earth	
6-7-80	10:05	2160-2180				Repressure
	10:12	2160-2180				"
	10:20	2160-2180				"
	10:30	2160-2180				"
	10:45	2160-2180				"
	10:56	2160-2180				Repressure
	11:10	2160-2180				"
	11:24	2160-2180				"
	11:36	2160-2180				"
	11:50	2160-2180				"
6-8-80	12:03 AM	2160-2180				Repressure
	12:13	2160-2180				"
	12:33	2160-2180				"
	12:46	2160-2180				
	1:15	2160				

CSI Engineer James Roy Powell

Witness 1 James E. Steen

2 _____

Field Approval for Pipeline Company

Insp _____

Chief Insp. K. L. Detillier

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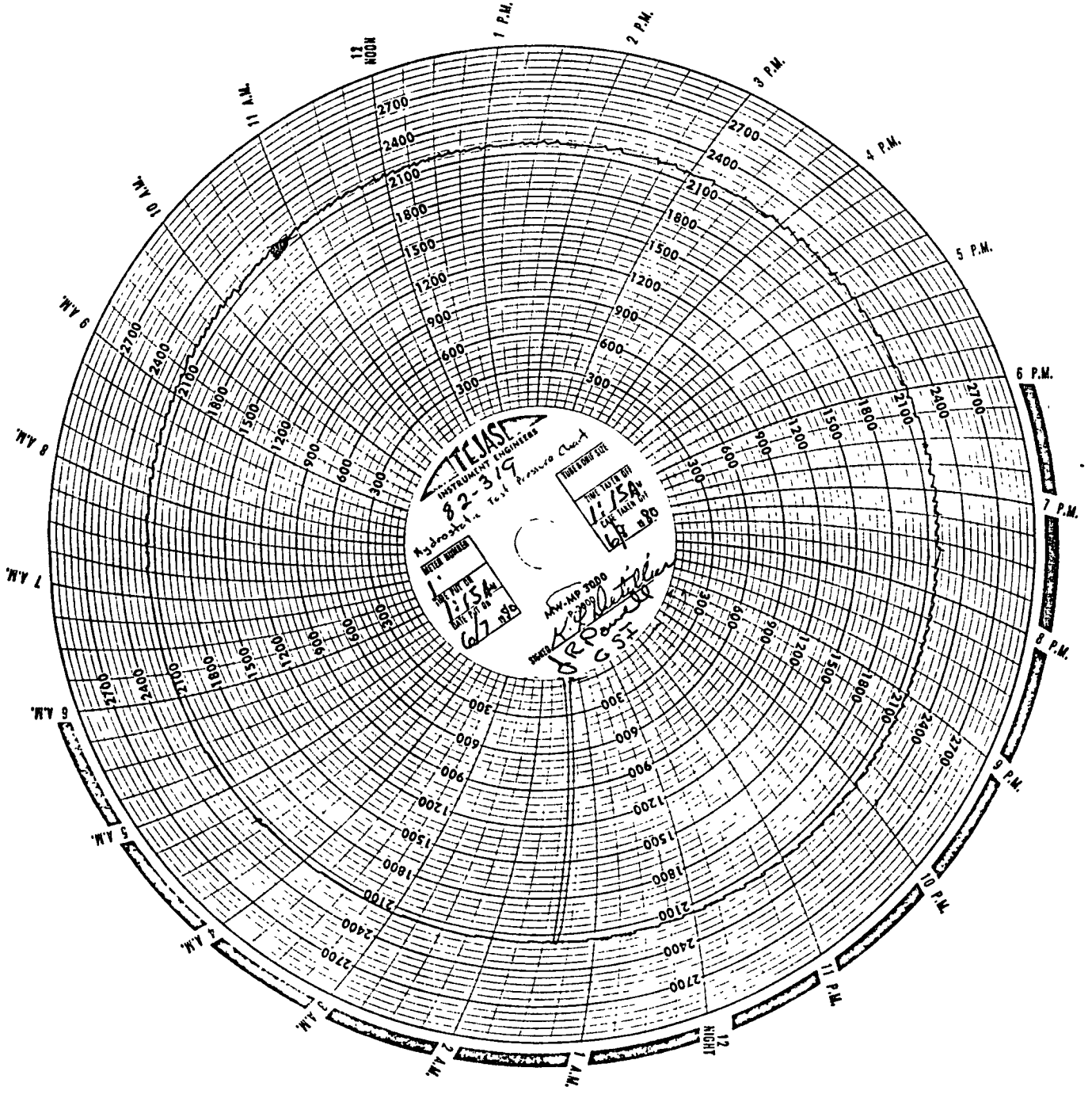

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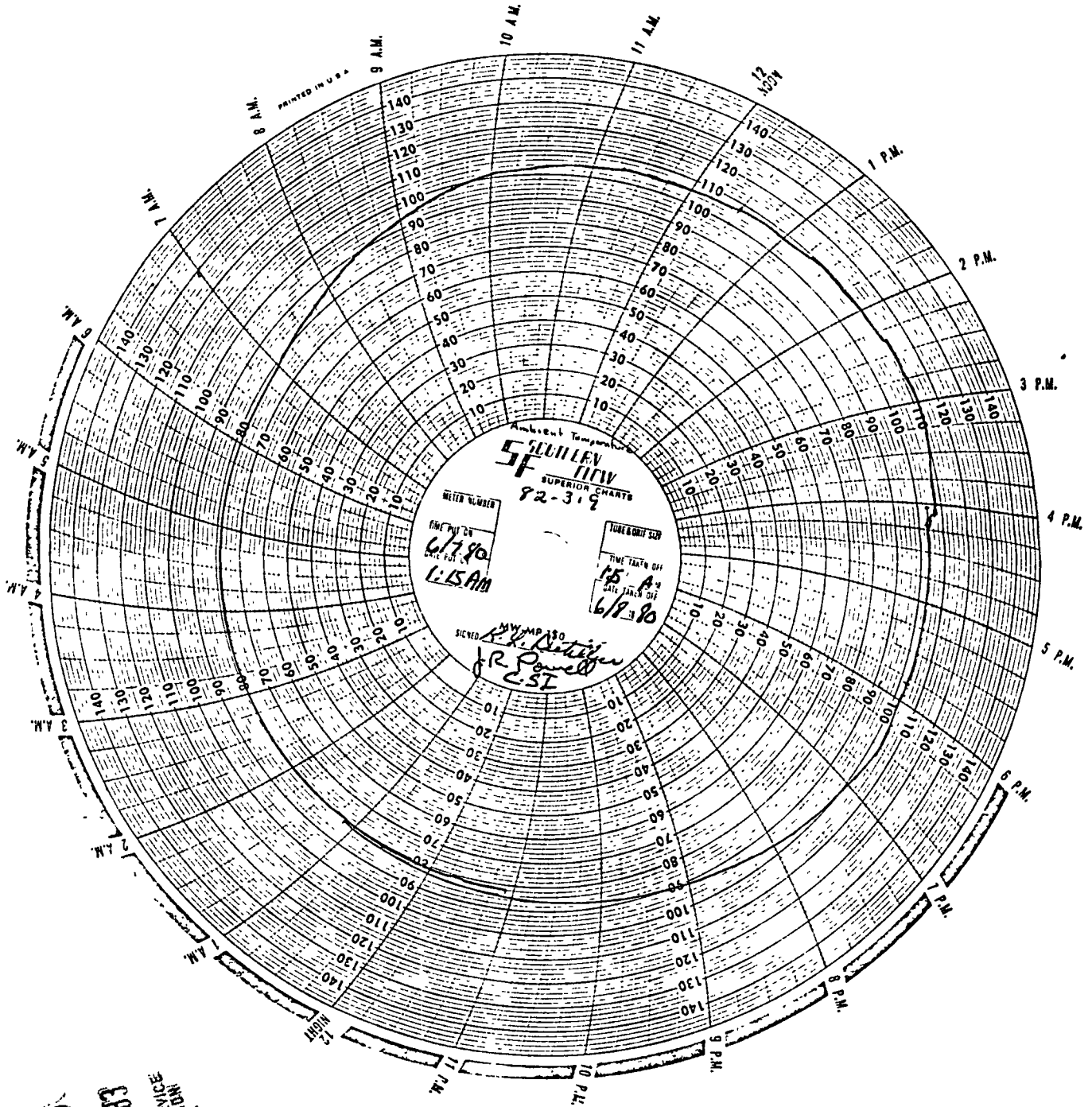

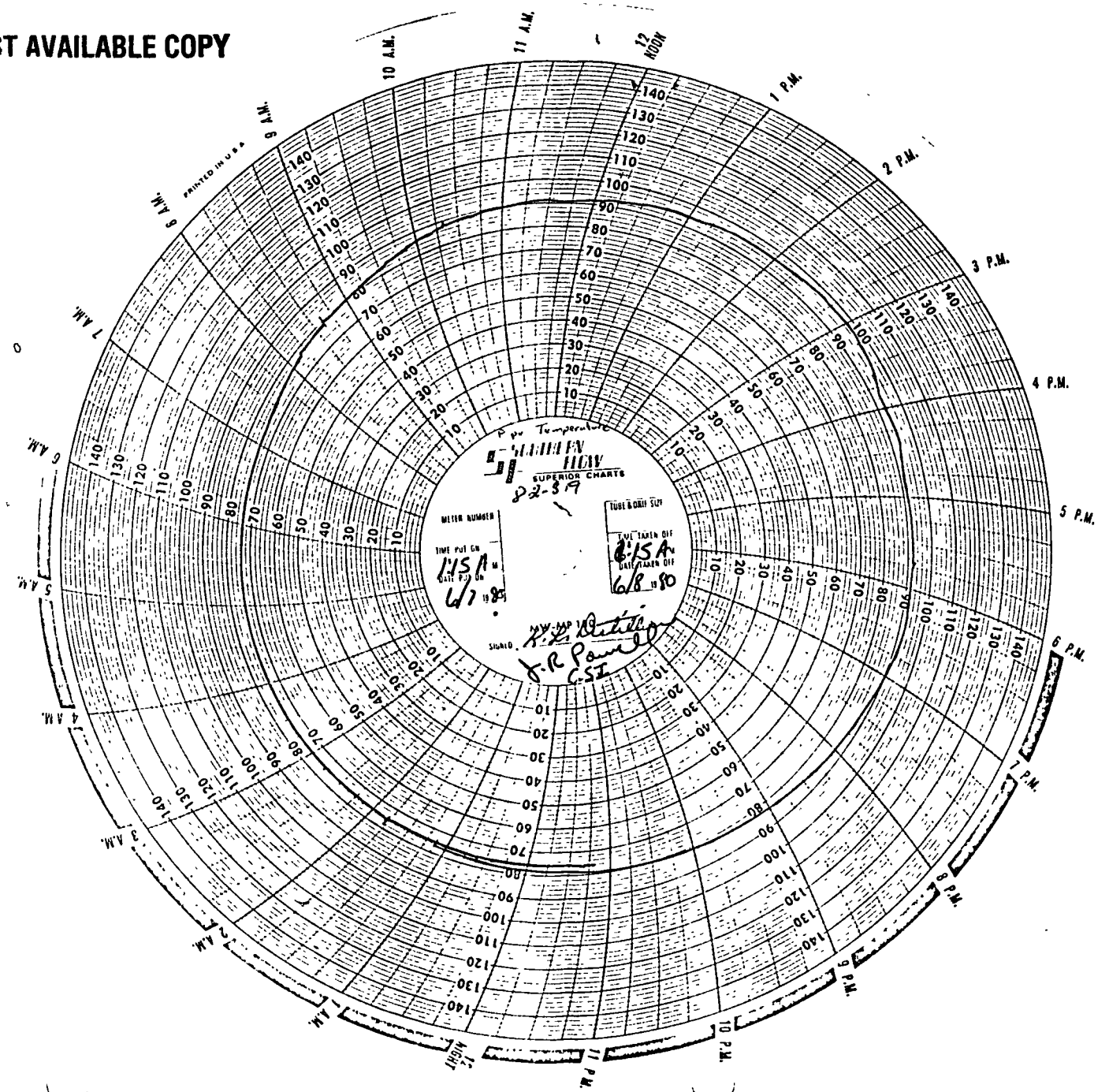

P. O. BOX 2905
LAFAYETTE, LOUISIANA 70502

Greene's Pressure Testing AND Rentals, Inc.

LAFAYETTE (318) 232-2911 — HOUMA (504) 876-5351 — ALICE, TEXAS (512) 664-2178

Date: 7-14-80

MISCELLANEOUS TEST RECORD TICKET

CHARGE Ingram Marine DRLG. CONT. Pipeliner #7

ADDRESS PO Drawer 53475 PARISH Pipeline Test WELL#

CITY Lafayette La. ORDER# Job # 9013 UNIT

LEASE S/T 146 FIELD

DEAD WT. SER.# TEMP. RECORDER SER.# PRESS. RECORDER SER.#

TESTED PRESSURE 2160 PSI TIME ARRIVED 1:00 PM 7-13-80 COMP.

TIME	DEAD WT.	PRESS. RECORDER	TEMP. RECORDER	TIME	DEAD WT.	PRESS. RECORDER	TEMP. RECORDER
7-14-80 11:00 AM	2160	2160	89°	8:00 PM	2158	2158	78°
11:15 AM	2160	2160	89°	8:30 PM	2157	2157	77°
11:30 AM	2160	2160	88°	9:00 PM	Repressured 2160	2160	76°
11:45 AM	2160	2160	87°	9:30 PM	2160	2160	76°
12:00 PM	2160	2160	87°	10:00 PM	2160	2160	76°
12:15 PM	2155	2155	87°	10:30 PM	2160	2160	76°
12:30 PM	Pressured to 2163	2160	87°	11:00 PM	2160	2160	76°
12:45 PM	2160 Pressure Surge from Pump	2160	86°	11:30 PM	2158	2158	75°
1:00 PM	2160	2160	86°	12:00 AM	2158	2158	75°
1:15 PM	2160	2160	86°	1:00 AM	Repressured 2160	2160	75°
1:30 PM	2158	2158	84°	2:00 AM	2160	2160	75°
1:45 PM	2156	2156	84°	3:00 AM	2160	2160	74°
2:00 PM	2153	2153	82°	4:00 AM	2160	2160	74°
2:30 PM	Pressured to 2160	2160	82°	5:00 AM	2160	2160	74°
3:00 PM	2160	2160	81°	6:00 AM	2160	2160	74°
3:30 PM	2159	2159	81°	7:00 AM	2160	2160	75°
4:00 PM	2156	2156	80°	7:30 AM	2160	2160	79°
4:30 PM	2156	2156	80°	8:00 AM	2160	2160	85°
5:00 PM	2155	2155	80	8:30 AM	2160	2160	84°
5:30 PM	Pressured to 2160	2160	82°	9:00 AM	2160	2160	92°
6:00 PM	2160	2160	81°	9:30 AM	2160	2160	92°
6:30 PM	2160	2160	80°	10:00 AM	2160	2160	92°
7:00 PM	2160	2160	80°	10:30 AM	2160		89°
7:30 PM	2160	2160	79°	11:00 AM	2160	2160	84°

Max L Wood (GPT)
UNIT OPERATOR

7-15-80 Daniel A Mitchell
COMPANY REPRESENTATIVE

U-GPL

UNITED GAS PIPE LINE COMPANY

UNITED ENERGY PLAZA • POST OFFICE BOX 1478
HOUSTON TX 77001 • TELEPHONE (713) 229-4123

May 11, ~~1983~~ 1983

Minerals Management Service
P. O. Box 7944
Metairie, Louisiana 70010

Attention: Mr. Autry Britton

Dear Autry:

Attached please find the As-Built drawings and hydrostatic test information which you requested. This information relates to your outer continental shelf numbers G 3871, G ~~1970~~ 1907 AD, G 1907 N, G 4050, G 1907 AF, G 3921, G 3370, G 3838, G ~~1970~~ 1907 AB, G 4275, and G 3824.

Please contact Trudy A. Holmes at (713)229-5196 if you have any questions regarding the package of information which I left with you recently.

Sincerely,

Michael A. Krone

Michael A. Krone
Environmental Analyst

MAK/ssr

bcc: T. A. Holmes
lt.mk.5/11/83

Block 146 82-319

OCS-G4275

Hydrostatic Test #1 was conducted by:
C.S.I. Hydrostatic Testers Inc.
P.O. Box 51282
Lafayette, Louisiana 70505

Hydrostatic Test #2 was verified by the presents of
Greene's Pressure Testing
P.O. Box 2905
Lafayette, Louisiana 70502
All rigging and pressuring was conducted by Ingram's crew on this test.

United Gas Pipe Line Inspectors
Test Number 1 K.L. Detillier
Test Number 2 D.L. Mitchell

Chart and dead weight readings accompany this report along with a drawing showing test sections.

Hydrostatic Test #2

This test included the already previously tested fabrication at Conoco Block 146 Platform "A" and the 6 5/8" pipeline from Conoco Block 146 to survey station at Conoco Block 148 South Timbalier, offshore Louisiana. At 7:30 p.m. on July 12 started to fill pipe line with water. A poly pig and a sizing pig was run ahead of fill water from Block 148 to Block 146. Line was full and sizing and poly pigs arrived in trap at Block 146 at 1:45 a.m. 12 gallons of Tret-o-lite KW-12 corrosion inhibitor was used in pipe line.

Hydrostatic Test:

Test began at 10:50 a.m. on July 14, 1980 at 2160 psig. Test ended at 10:50 a.m. on July 15, 1980 at 2160 psig. The maximum test pressure for this test was 2163 psig and the minimum pressure was 2150 psig.

Dewater:

Dewater poly pig left Conoco Block 148 at 12:45 p.m. on July 15 and arrived in pig trap at Conoco Block 146 at 11:30 p.m. Water was discharged back into the Gulf of Mexico. Pig was run by an air compressor.

Hydrostatic Test

This test included all Fabrication assembled at Steen's Machine Shop in Abbeville, Louisiana. Fabrication included 2 pig traps, meter station, platform and riser piping for Conoco Block 146 "A" and Conoco Block 198 South Timbalier, OFFshore, Louisiana.

Hydrostatic Test:

Test Began at 1:15 a.m. on June 7, 1980 at 2177 psig.
Test Ended at 1:15 a.m. on June 8, 1980 at 2160 psig.
The maximum test pressure for this test was 2180 psig. and the minimum pressure was 2160 psig.

Dewater

Being fabrications, no dewater pigs were run. Valve was opened and test section allowed to drain dry.

Changes in Preliminary Plan

Changes consisted of adding an extension deck on Conoco's Platform at Block 146 as detailed on revised drawing issued May 15, 1980 on sheet 1-N, 1-O of 1, and 1G of 1, and moving the meter station skid location to the new platform extension as detailed. Also changed the sub sea pipe line route as detailed on revised drawings issued Mar 16, 1980 on sheets 1 of 1 and 1C of 1.

Welding Procedure and Radiographic Control

same as yellow folder. or Hughs.

Foreign Pipe Line Crossings — see As-built drawing.

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Contractor had a total of 1½ ~~days~~ of no progress due to bad weather. ~~While working on fabrication~~ contractor had no days off for week ends. Time down due to equipment failure on Pipe Liner 3 was 175 hours or 7.3 days. Pipe Liner 7's down time for equipment failure was 45 minutes. Contractor work two 12 hour shifts during all work off shore.

All pipeline work was located in the Gulf of Mexico in 8' to 108' depths.

History of Job

The contract was entered into on May 1, 1980 with Ingram Marine Constructors, Inc. Ingram's subcontractor Steen's Machine Shop began fabrication construction on May 8, 1980 and was completed on June 7, 1980. Ingrams barge, Pipe Liner 3, arrived on job location on June 8, 1980 and began laying pipe from Block 198 to Block 196. On June 9 Pipe Liner 2 ran out of pipe with another 1000 foot of pipe needed to complete the job. At this time more pipe had to be coated and shipped out to the Ingrams Pipe Liner 3 began jetting pipeline down on June 10, Jetting operations was shut down on June 16 due to mechanical failures so Pipe Liner 3 move to Block 198 to set riser. By June 23, platform jetted to grade fabrication and riser guard were also installed. Pipe Line 3 then moved to Block 196 and finish laying pipeline on June 24. Pipe Liner 2 started work on setting riser, platform extension and fabrication on June 25. Barge completed this operation including jetting riser, at base of jacket leg down to grade by July 1. Pipe Line 3 then went back to jetting entire pipe line down After working difficulty with jetting equipment Ingram sent Pipe Liner 7 to help Pipe Liner 3 complete jetting down pipeline on July 9. Ingram decided to have Pipe Liner 7 complete all jetting and other finished work and moved Pipe Liner 3 off job on July 12. All jetting was completed on July 13. Pipe Liner 7 then made hydrostatic test on pipe line, and made final tie-in. Pipe Liner 7 was off job on July 16. Work boat Auger Cutter completed final touch up painting on August 17. After waiting until correct rock was ready. Line was placed in service on

The following personnel for contractor and United Gas Pipe Line Company worked on this contract:

United Gas Pipe Line Company

Name	Position	On Job	Off Job
H.D. Parkman	Project Supervisor	5-1-80	9- -80
D.J. Mitchell	Progress	6-11-80	9- -80
K.L. Detillier	Welding Inspector	5-12-80	6-13-80
J. Moffett	Welding Inspector	6-16-80	7-17-80
C. LeBlanc	General Inspector	6-2-80	7-17-80

PLEICO - Contract Inspectors for United Gas Pipe Line Company

Charlie Holland	Welding Inspector	5-4-80	5-18-80
charlie Weise	Welding Inspector	5-12-80 7-1-80 8-15-80	5-18-80 7-15-80 8-17-80
Edd Lee	Welding Inspector	5-31-80	7-16-80
Phil Tillman	Welding Inspector	5-31-80	6-16-80
Noland Rains	General Inspector	5-30-80	6-15-80
James Marshall	General Inspector	6-3-80	6-4-80
George Guthrie	General Inspector	6-3-80	6-8-80
John Weise	General Inspector	7-1-80	7-15-80

Ingram Marine Constructors, Inc.

Jim Buckner	Executive Vice President	
Jim Dunn	Project Coordinator	
R.C. Hogan	Barge Superintendent	PL-3
Hal Singley	Barge Superintendent	PL-3
Earl Robinson	Barge Superintendent	PL-7
M. Voisin	Barge Superintendent	PL-7

Radiographic Inspection:

Lafayette Inspectors, Inc.
P.O. Box 53873, O.C.S.
Lafayette, Louisiana 70505
Telephone (318) 233-9664

Helicopter Service:

Petroleum Helicopters, Inc.
P.O. Box T
Lafayette, Louisiana 70502
Telephone (318) 235-2452
Galveston Telephone (713) 744-5286

Greene's Pressure Testing
P.O. Box 2905
Lafayette, Louisiana 70502
Telephone (318) 232-2911

Contract Inspectors:

Pipe Line Engineers and Inspection Co., Inc. (PLEICO)
P.O. Box 911
Austin, Texas 78767
Telephone (512) 453-7274

Pipe Coating:

Bayou Pipe Coating
P.O. Box 1359
New Iberia, Louisiana 70560
Telephone (318) 369-3761

Surveyors:

John E. Chance and Associates, Inc.
P.O. Box 52029
Lafayette, Louisiana 70505
Telephone (318) 237-1300

Inspection Divers:

James E. Dean
P.O. Box 715
Harvey, Louisiana 70059
Telephone (504) 394-5830

United Gas Pipe Line Company

Construction Report

AFE 82-319

Location and Description

The construction of approximately 4.8 miles of 6 5/8" O.D. natural gas pipe line to connect Conoco Block 146 Platform A to Conoco Block 148 Platform A, including a skid-mounted single 4 1/2" turbine meter station and 8 5/8" pig trap assembly and other appurtenances at Block 146 and a skid-mounted 8 5/8" pig trap assembly and other appurtenances at Block 148. All work was located in South Timbalier Area, Offshore Louisiana.

Contractors

Prime Contractor:

Ingram Marine Constructors, Inc.
P.O. Drawer 53475
Lafayette, Louisiana 70505
Telephone (318) 233-7425

Fabrication (Subcontractor):

Steen's Machine Shop
Abbeville, Louisiana
Telephone (318) 893-0688

Hydrostatic Testing (Subcontractors):

C.S.I. Hydrostatic Testers, Inc.
P.O. Box 51282
Lafayette, Louisiana 70505
Telephone (318) 235-7567

2) Welding Records

a) Fabrication and Main Line

3) Welders Qualification

4) Main Line Installations (not finished)

5) Hydrostatic Testing Reports

a) Summary Reports

b) Charts and Dead Weight Readings

c) Test Section Drawing

6) Completion Drawings

H.P. Parkman

August , 1980

Mr. J. C. Holder

United Gas Pipe Line Company.

Post Office Box 1478

Houston, Texas 77001

Dear Mr. Holder,

The following is a final report on the contract dated May 1, 1980, to construct approximately 4.8 miles of 6 5/8" O.D. natural gas pipeline and appurtenances to connect Conoco Block 146 Platform A to Conoco Block 148 Platform A, all work was located in South Timbalier Area, Offshore Louisiana.

This report includes:

1.)

a)

b) Connections

2.)

3.)

4.)

5.)

6.)

7.)

8.)

9.)

10.)

11.)

12.)

Actual Sta. Nos. for anodes

137+13.78	137+21.30
142+11.63	142+19.21
147+17.93	147+25.51
152+25.53	152+33.11
157+31.83	157+39.41
162+45.13	162+52.71
167+54.63	167+62.21
172+61.93	172+69.51
177+69.43	177+77.01
182+78.88	182+86.46
187+90.73	187+98.31
192+93.83	193+01.41
197+94.08	198+01.66
202+90.33	202+97.91
207+78.58	207+86.16
212+81.73	212+89.31
218+17.08	218+24.66
223+09.98	223+17.06
228+95.13	229+02.71
233+89.43	233+97.01
239+34.88	239+42.46
244+34.88	244+42.46
249+76.39	249+83.97
255+51.19	255+58.77
260+95.94	261+03.52
265+78.34	265+85.92

65.43

266+43.77 – P.C. wk

0+00 @17.70	6+25.28
11+22.08	11+29.66
16+27.03	16+34.61
21+29.73	21+37.31
25+88.63	25+96.21
30+96.83	31+04.41
36+01.98	36+09.56
41+14.43	41+22.01
46+13.43	46+21.01
51+23.58	51+31.16
56+34.58	56+42.16
61+36.48	61+44.06
66+35.43	66+43.01
71+40.83	71+48.41
76+34.33	76+41.91
81+36.98	81+44.56
86+40.68	86+48.26
91+51.23	91+58.81
96+53.38	96+60.96
101+57.08	101+64.66
106+57.58	106+65.16
111+56.13	111+63.71
117+03.98	117+11.56
122+10.33	122+17.91
127+14.88	127+22.46
132+17.18	132+24.76

27	496.60	42.35	13681.16
28	497.85	42.75	14179.01
29	506.30	41.95	14685.31
30	507.60	43.70	15192.91
31	506.30	41.95	15699.21
32	513.30	41.35	16212.51
33	509.50	42.40	16722.01
34	507.30	41.80	17229.31
35	507.50	42.40	17736.81
36	509.45	42.15	18246.26
37	511.85	42.00	18758.11
38	503.10	41.35	19261.21
39	500.25	42.95	19761.46
40.	496.25	39.30	20257.71
41.	488.25	39.30	20745.96
42.	503.15	43.80	21249.11
43.	535.35	42,30	21784.46
44.	492.40	41.00	22276.86
45.	585.65	39.35	22862.51
46.	494.30	43.45	23356.81
47.	545.45	40.85	23902.26
48.	500.00	40.80	24402.26
49.	541.51	42.95	24943.77
50.	574.80	42.00	25518.57
51.	544.75	42.70	26063.32
52.	482.40	39.25	26545.72

* Length of anode joint included at this station number.

Anode Joint Location

Anode Number	Distance Between Anodes	* Length of Anode Joint	Station Number	* to Station Number
1	—	40.20	0+00	625.28 / 5+85.9
2	504.38	42.90	5+85.08	1089.46
3	504.95	42.00		1594.41
4	502.70	43.00		2097.11
5	458.90	41.85		2556.0
6	508.20	42.10		3064.21
7	505.15	40.40		3569.36
8.	512.45	43.30		4081.81
9	499.00	41.40		4580.81
10	510.15	42.55		5090.96
11	511.00	42.10		5601.96
12	501.90	41.80		6103.86
13	498.95	43.10		6602.81
14	505.40	41.65		7108.21
15	493.50	38.35		7601.71
16	502.65	42.65		8104.36
17	503.70	41.80		8608.06
18	510.55	42.00		9118.61
19	502.15	43.25		9620.76
20	503.70	43.40		10124.46
21	500.50	43.70		10624.96
22	498.55	42.70		11123.51
23	547.85	42.10		11671.36
24	506.35	42.75		12177.71
25	504.55	41.55		12682.26
26	502.30	36.40		13184.56

C. S. I. HYDROSTATIC TESTERS

Hydrostatic Test Report

. O. BOX 51282, O.C.S. LAFAYETTE, LA. 70505

ompany United Gas Pipeline Co.

Line _____ Location Abbeville Job No. 82-319 Length _____ ft.

Line Size _____ O.D. _____ W.T. Gr. _____ Sta/M.P. _____ to Sta/M.P. _____

Terrain Dry Open Machine Shop Soil Condition Dry

Fill began _____ at _____ A.M. P.M. Fill Completed _____ at _____ A.M. P.M.

Meter Reading: Beginning _____ Gals., Final _____ Gal.

Displacement: Theoretical _____ Gal., Meas. _____ Gal.

Gallons Required to increase pressure from _____ P.S.I.G. to _____ P.S.I.G. _____ Gal. PRESSURE PUMP MEASUREMENT

Exposed pipe All ft. General Contractor _____

Fill water Temperature

TIME		Deadweight Pressure	TEMPERATURE OF			REMARKS
Date	Hour		Air	Pipe	Remote Earth	
6-6-80	10:25 PM	0				Start Pressure Up
	11:00	2175				At Test Pressure
	11:06	2164-2175		-		Repress.
	11:10	2163-2175				Change Deadweight Hose
	11:15	2171				Repress
	11:20	2160-2175				Repress
	11:25	2161-2175				
	11:37	2165				Bled down to repair DW hose
	11:45	0				Start Pressure Up
	11:56	2178				At Test Pressure
	12:04 AM	2169				
6-7-80	12:10	2101-2177				Repress
	12:15	2169				Fix Leak in hose
	12:23	2161-2178				Repress
	12:36	2175				
	12:45	2166				
	12:48	2164				Bled down to replace DW hose
	1:05	60				Start Press Up
	1:15	2177				At test Press.
	1:20	2161-2176				Fix Leak - Repress
	1:36	2161-2178				Repress
	1:45	2171				

CSI Engineer J. R. Powell

Witness 1 K. L. Stubblefield

2 _____

Field Approval for Pipeline Company

Insp. _____

Chief Insp. K. L. Stubblefield

C.S.I. HYDROSTATIC TESTERS

Hydrostatic Test Report

P. O. BOX 51282, O.C.S. LAFAYETTE, LA. 70505

Line_____ Location_____ Job No._____ Length_____ ft.

Line Size_____ O.D._____ W.T. Gr._____ Sta/M.P._____ to Sta/M.P._____

TIME		Dead Weight Pressure	TEMPERATURE OF			REMARKS
DATE	HOUR		Air	Pipe	Remote Earth	
6-7-80	2:00	2166				
	2:05	2161-2178				Repress.
	2:15	2173				
	2:30	2168				
	2:45	2163				
	2:48	2160-2177				Repress.
	3:00	2172				
	3:15	2168				
	3:38	2161-2178				Repress.
	4:00	2171				
	4:24	2161-2177				Repress.
	4:30	2167				
	5:00	2170				
	5:25	2162-2178				Repress.
	5:30	2176				
	6:00	2162				
	6:07	2161-2178				Repress.
	6:30	2171				
	7:00	2174				
	7:05	2179-2165				Bled Down
	7:25	2180-2160				Bled Down
	7:30	2166				
	7:40	2180-2160				— —
	7:60	2180-2160				— —
	8:00	2180-2160				— —
	8:10	2180-2160				— —
	8:20	2180-2160				— —
	8:30	2180-2160				— —
	8:40	2180-2160				— —
	8:45	2150-2160				— —
	8:55	2150-2160				— —
	9:00	2177				
	9:05	2180-2160				— —
	9:15	2180-2160				— —
	9:20	2180-2160				— —
		~~2150-2160~~				

CSI Engineer J. R. Powell

Witness 1 [signature]

2 _____

Field Approval for Pipeline Company

Insp. _____

Chief Insp. K. L. Dotillier

C. S. I. HYDROSTATIC TESTERS

Hydrostatic Test Report

P. O. BOX 51282, O.C.S. LAFAYETTE, LA. 70505

Line_____ Location_____ Job No._____ Length_____ ft.

Line Size_____ O.D._____ W.T. Gr._____ Sta/M.P._____ to Sta/M.P._____

TIME		Dead Weight Pressure	TEMPERATURE OF			REMARKS
DATE	HOUR		Air	Pipe	Remote Earth	
6-7-80	9:30 AM	2180 2160				bled down
	9:35	2180 2160				— —
	9:40	2180 2160				— —
	9:50	2180 2160				— —
	9:55	2180 2160				— —
	10:07	2180 2160				— —
	10:30	2180 2160				SUN went down Choudy
	10:47	2180 2160				Choudy bled down
	11:00	2180 2160				SUN BACK OUT bled down
	11:12	2180 2160				bled down
	11:20	2180 2160				— —
	11:27	2180 2160				— —
	11:30	2180 2160				— —
	11:40	2180 2160				— —
	11:45	2180 2160				— —
	11:55	2180 2160				— —
	12:05	2180 2160				— —
	12:13	2180 2160				— —
	12:23	2180 2160				— —
	12:29	2180 2160				— —
	12:34	2180 2160				— —
	12:36	2180 2160				— —
	12:45	2180 2160				— —
	12:53	2180 2160				— —
	1:12	2180 2160				— —
	1:25	2180 2160				— —
	1:32	2180 2160				— —
	1:54	2180 2160				Choudy Skys
	2:08	2180 2160				— —
	2:35	2180 2160				— —
	3:01	2180 2165				
	3:40	2160 2180				Repressoened
	3:50	2160 2180				Repressuered
	4:01	2160 2180				Repressuered
	4:10	2180 2174				bled off SUN OUT
	4:34	2180 2174				Repressuered Choudy

CSI Engineer J. R. Powell

Witness 1 [signature]

2 _____

Field Approval for Pipeline Company

Insp. _____

Chief Insp. K. L. Detillier

C. S. I. HYDROSTATIC TESTERS

Hydrostatic Test Report

P. O. BOX 51282, O.C.S. LAFAYETTE, LA. 70505

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Line _____ Location _____ Job No. _____ Length _____ ft.

Line Size _____ O.D. _____ W.T. Gr. _____ Sta/M.P _____ to Sta/M.P _____

TIME		Dead Weight Pressure	TEMPERATURE OF			REMARKS
DATE	HOUR		Air	Pipe	Remote Earth	
6-7-80	4:29	2160-2180				Cloudy Repressured
	4:36	2160-2180				Repressured Cloudy
	4:47	2160-2180				Repressured Cloudy
	4:56	2160-2180				" "
	5:08	2160-2180				" "
	5:36	2160-2180				" "
	5:44	2160-2180				" "
	5:52	2160-2180				" "
	6:02	2160-2180				" "
	6:26	2160-2180				" "
	6:36	2160-2180				" "
	6:44	2160-2180				" "
	6:52	2160-2180				" "
	6:59	2160-2180				" "
	7:05	2160-2180				" "
	7:12	2160-2180				" "
	7:18	2160-2180				" "
	7:30	2160-2180				" "
	7:37	2160-2180				" "
	7:44	2160-2180				" "
	7:50	2160-2180				" "
	7:58	2160-2180				" "
	8:04	2160-2180				" "
	8:10	2160-2180				" "
	8:18	2160-2180				" "
	8:24	2160-2180				" "
	8:30	2160-2180				" "
	8:35	2160-2180				" "
	8:43	2160-2180				" "
	8:50	2160-2180				" "
	9:00	2160-2180				" "
	9:09	2160-2180				" "
	9:18	2160-2180				" "
	9:25	2160-2180				" "
	9:37	2160-2180				" "
	9:43	2160-2180				" "

CSI Engineer J. R. Powell

Witness 1 _____

2 _____

Field Approval for Pipeline Company

Insp. _____

Chief Insp. K. L. Rutledge

C. S. I. HYDROSTATIC TESTERS

Hydrostatic Test Report

P. O. BOX 51282, O.C.S. LAFAYETTE, LA. 70505

Line_____ Location_____ Job No._____ Length_____ ft.

Line Size_____ O.D._____ W.T. Gr._____ Sta/M.P._____ to Sta/M.P._____

TIME		Dead Weight Pressure	TEMPERATURE OF			REMARKS
DATE	HOUR		Air	Pipe	Remote Earth	
6/7/80	9:56	2160-2180				REPRESSURE
	10:05	2160-2180				"
	10:12	2160-2180				"
	10:20	2160-2180				"
	10:30	2160-2180				"
	10:45	2160-2180				"
	10:56	2160-2180				"
	11:10	2160-2180				"
	11:24	2160-2180				"
	11:36	2160-2180				"
	11:50	2160-2180				"
6/8/80	12:03	2160-2180				"
	12:13	2160-2180				"
	12:33	2160-2180				"
	12:46	2160-2180				

CSI Engineer J. R. Powell

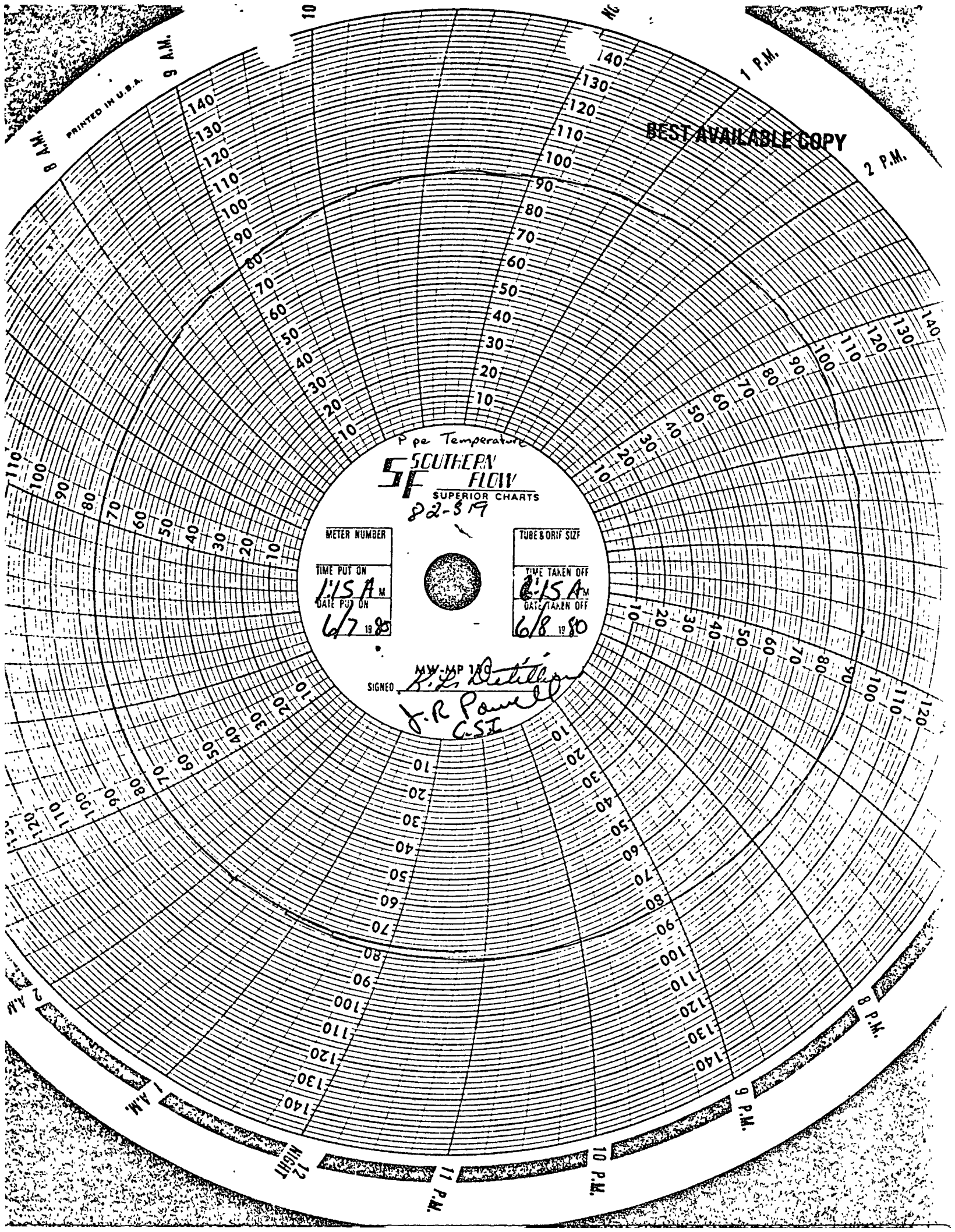
Witness 1 [illegible]

2 _____

Field Approval for Pipeline Company

Insp. _____

Chief Insp. K. L. Detillier


PRINTED IN U.S.A.
BEST AVAILABLE COPY
Pipe Temperature
SOUTHERN FLOW
SUPERIOR CHARTS
82-519
METER NUMBER
TUBE & ORIF SIZE
TIME PUT ON
1:15 AM
DATE PUT ON
6/7 1980
TIME TAKEN OFF
1:15 AM
DATE TAKEN OFF
6/8 1980
SIGNED
J.R Powell
C.S.I.
8 A.M.
9 A.M.
1 P.M.
2 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
MIDNIGHT
1 A.M.
2 A.M.

TP	MD	CUSTOMER	FIELD	STATION

COMPUTER - DATA PROCESSING
HOUSTON - LAFAYETTE - NEW ORLEANS

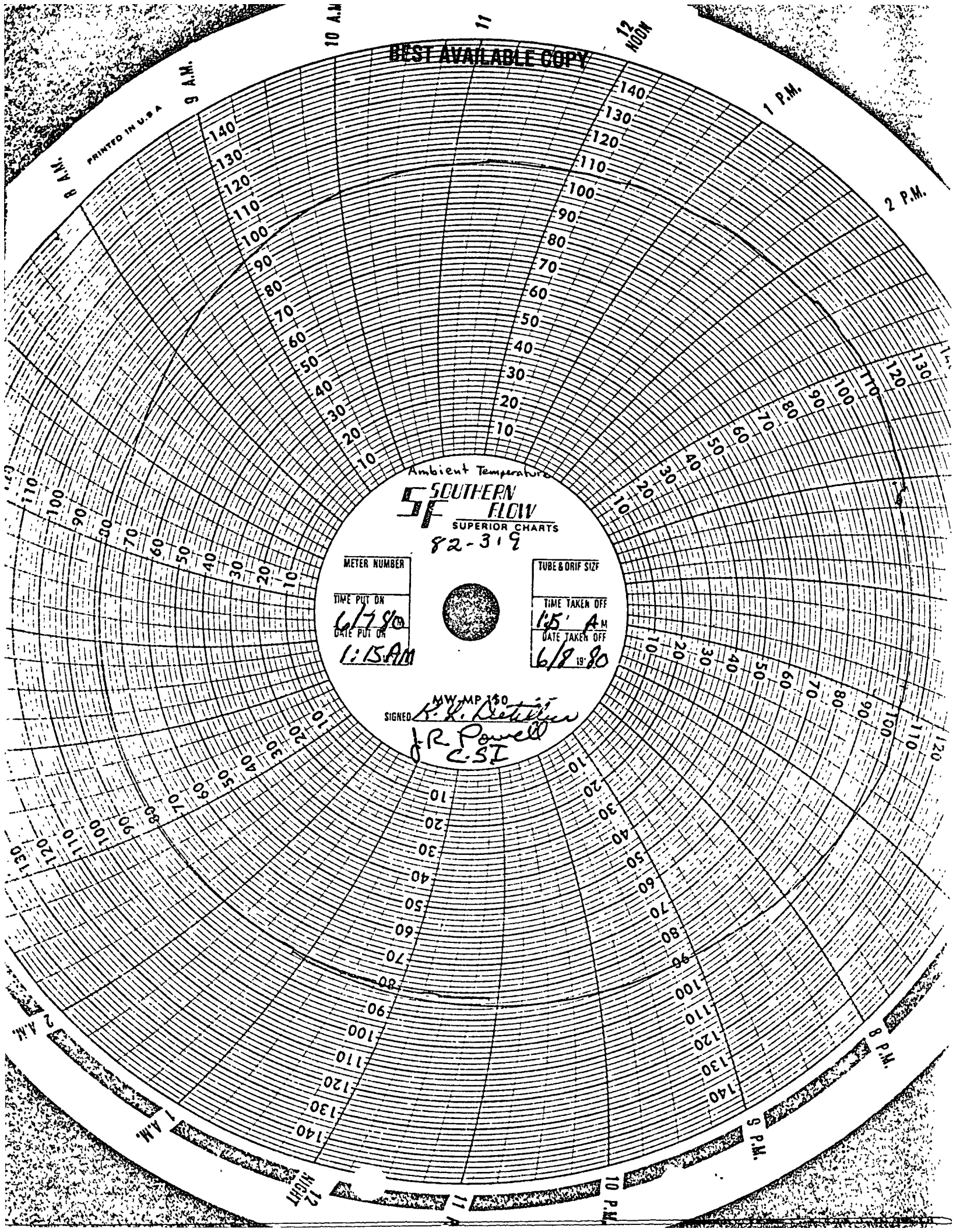
DAY ON	DAY OFF	M'D COUNT	PRES COUNT	TIME COUNT	PSIG AVG	SPEC. GRAV	FLOW TEMP	E G	ORIFICE SIZE	E C	DIAL DIFF

DAY ON	DAY OFF	M	CONSTANT FACTOR	BTU	CO-2	N-2	EST DL	A

Pipe Temperature (Test #1) - All Fabrication Work
AFE 82-319

1) Pg Traps
2) Meter Station
3) Riser Piping

Conoco Block 146 Platform "A" and Conoco Block 148
South Timbalier Area, Offshore Louisiana



COMPUTER - DATA PROCESSING

HOUS N - LAFAYETTE - NEW ORLE S

DAY ON	DAY OFF	M'S COUNT	PRES. COUNT	Time COUNT	PSIG AVG	SPEC GRAV	FLOW TEMP	TEST	ORIFICE SIZE	TEST	DIAL DIFF	STAT PRESS
6												

SF

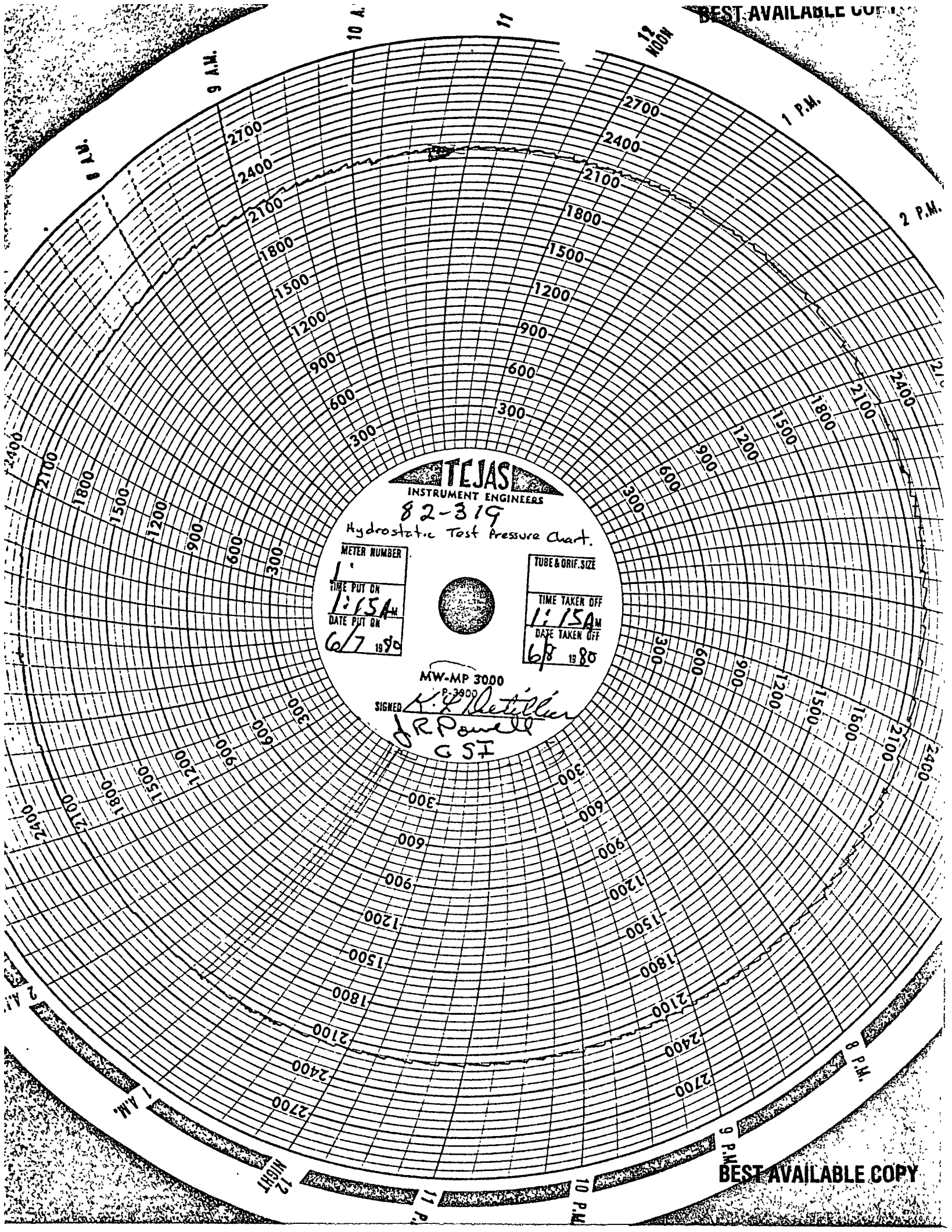
DAY ON	DAY OFF	CONSTANT FACTOR	STU	CO 2	N2	EST VOL MCF	ACT VOL MCF

Ambient Temperature (Test #1) - All Fabrication Work

AFE 82-319

1) P.g Traps
2) Meter Station
3) Riser Piping

Conoco Block 146 Platform "A" and Conoco Block 148
South Timbalier Area, Offshore Louisiana



(Test #1
AFE 82-319)

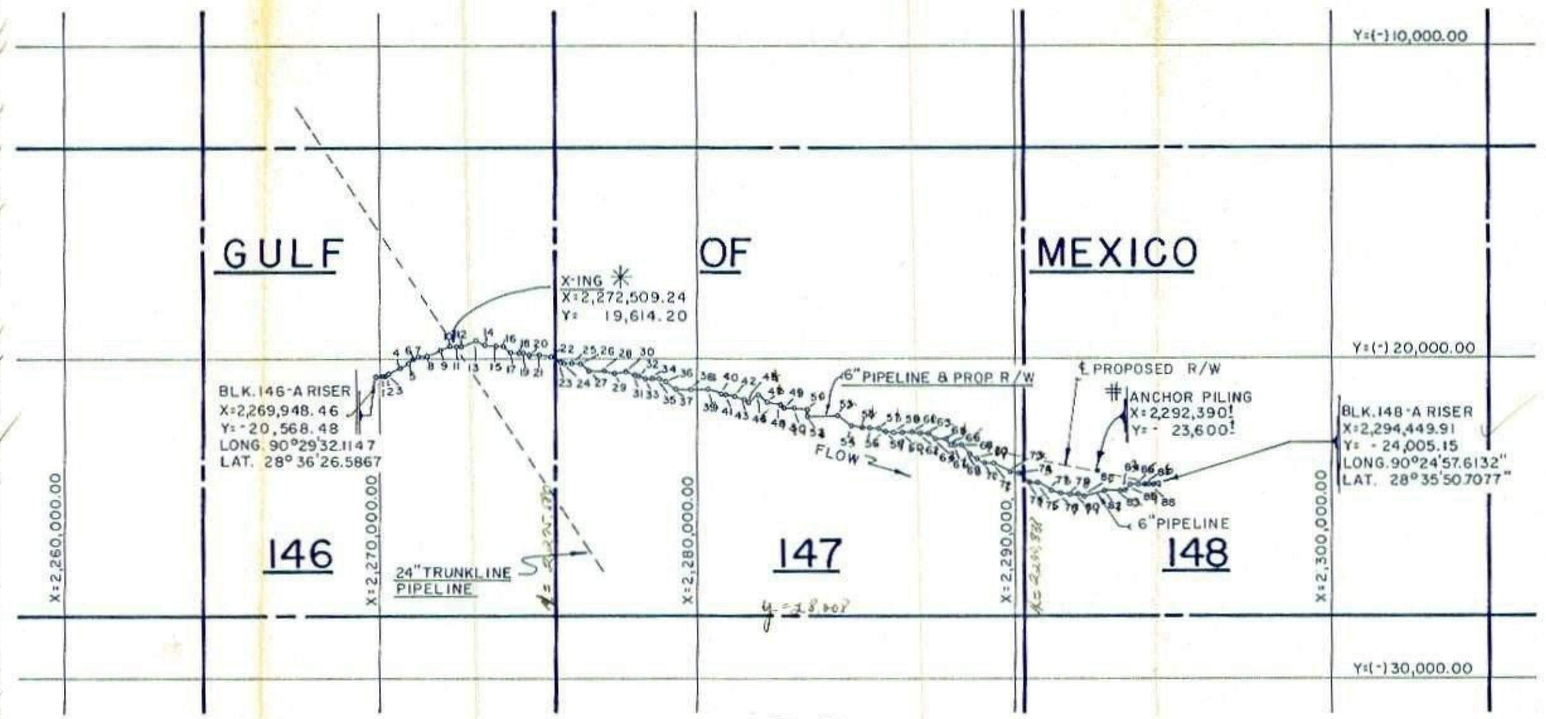
Pressure Chart

Hydrostatic Test Chart on the testing of all fabrication, including pigtraps and meter station, and riser pipe for Conoco Block 146 Platform "A" and Conoco Block 148 South Timbalier Area, Offshore Louisiana. AFE. 82-319.

SOUTH TIMBALIER AREA

BEST AVAILABLE COPY

PT.	COORDINATES "X"	"Y"
1	2,270,016.90	-20,567.79
2	2,270,149.71	-20,521.09
3	2,270,238.10	-20,454.12
4	2,270,633.68	-20,360.90
5	2,270,858.73	-20,147.36
6	2,271,019.88	-20,035.47
7	2,271,179.21	-19,988.02
8	2,271,512.32	-19,911.52
9	2,271,816.09	-19,759.71
10	2,272,164.21	-19,683.14
11	2,272,444.71	-19,663.63
12	2,272,650.22	-19,556.51
13	2,273,048.29	-19,463.87
14	2,273,374.76	-19,620.64
15	2,273,645.62	-19,623.86
16	2,273,852.61	-19,640.25
17	2,274,195.28	-19,789.99
18	2,274,380.44	-19,783.26
19	2,274,521.99	-19,815.79
20	2,274,731.23	-19,876.24
21	2,275,045.94	-19,884.21
22	2,275,392.07	-20,053.04
23	2,275,686.62	-20,119.42
24	2,275,876.50	-20,139.82
25	2,276,090.48	-20,174.41
26	2,276,306.76	-20,163.08
27	2,276,596.96	-20,364.81
28	2,277,082.38	-20,294.15
29	2,277,383.79	-20,435.71
30	2,277,782.82	-20,362.09
31	2,278,090.88	-20,515.84
32	2,278,219.34	-20,534.00
33	2,278,362.48	-20,598.06
34	2,278,629.62	-20,609.17
35	2,278,798.03	-20,681.46
36	2,279,002.01	-20,698.27
37	2,279,355.36	-20,964.28
38	2,280,070.88	-20,959.17
39	2,280,334.09	-21,037.66
40	2,280.692.78	-21,116.36
41	2,280.832.19	-21,136.33
42	2,281,128.13	-21,241.74
43	2,281,375.64	-21,274.79
44	2,281,526.01	-21,331.06
45	2,281,872.89	-21,192.47
46	2,282,125.43	-21,347.64
47	2,282,546.10	-21,444.10
48	2,282,676.53	-21,515.81
49	2,283,02428	-21,469.72
50	2,283,434.40	-21,673.37
51	2,283,793.01	-21,807.56
52	2,284.369.35	-21,809.48
53	2,284.746.86	-22,175.17
54	2,285,198.67	-22,126.05
55	2,285,371.22	-22,193.45
56	2,285,659.30	-22,171.17
57	2,285,837.05	-22,284.21
58	2,286,157.40	-22,269.84
59	2,286,427.11	-22,383.50
60	2,286,779.72	-22,272.07
61	2,286,97888	-22,352.73
62	2,287,265.73	-22,356.40
63	2,287,429.16	-22,498.03
64	2,287,724.24	-22,580.92
65	2,287,909.72	-22,703.18
66	2,288,071.52	-22,744.29
67	2,288,222.12	-22,757.57
68	2,288,547.85	-23,080.79
69	2,288,783.20	-23,136.99
70	2,289,00537	-23,244.96
71	2,289,287.04	-23,257.30
72	2,289,885.55	-23,690.47
73	2,290,132.24	-23,663.88
74	2,290,481.46	-23,930.38
75	2,290,664.74	-23,929.29
76	2,291,136.31	-24,179.75
77	2,291,469.93	-24,218.03
78	2,291,689.21	-24,283.34
79	2,291,962.38	-24,286.69
80	2,292,157.18	-24,340.03
81	2,292,835.79	-24,184.87
82	2,293,292.20	-24,091.24
83	2,293,416.56	-24,111.65
84	2,293,638.77	-24,054.61
85	2,293,818.57	-24,090.47
86	2,294,100.73	-24,083.83
87	2,294,156.60	-24,051.76
88	2,294,370.26	-24,018.60

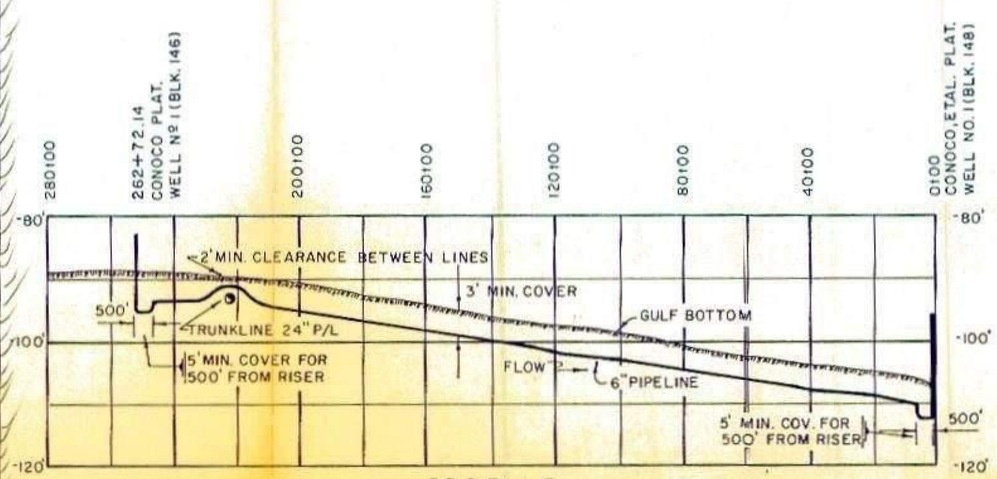


PLAN

4,000' 0 4,000'

ANCHOR PIPING (LOCATED APPROX. 2,000' FT. WEST OF CONOCO ETAL BLOCK 148 Nº 1 WELL) WAS LOCATED & BUOYED PRIOR TO CONSTRUCTION, & PIPELINE WAS LAID IN SUCH A MANNER AS TO MISS ANCHOR PILING.

✳ PIPELINE CROSSING DETAIL AS PER UC 23038 SHEET 2 OF 2.



PROFILE

4,000' 0 4,000' HORIZ.

20' 0 20' VERT.

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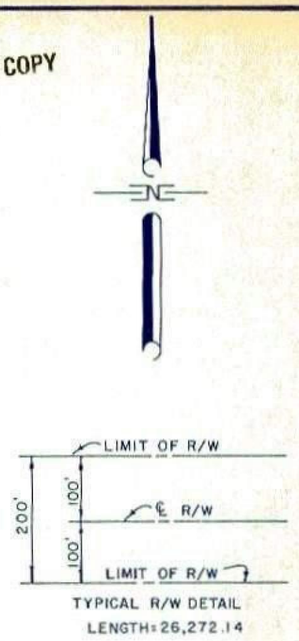


TYPICAL R/W DETAIL
LENGTH=26,272.14

NOTE: THIS PIPELINE IS TO BE USED TRANSPORT NATURAL GAS FROM OFFSHORE PLATFORMS TO A MAIN LINE PIPELINE SYSTEM.

THE DESIGN ON THIS PIPELINE RIGHT OF WAY COMPLIES WITH D.O.T. REGULATIONS.

Donald L. Callahan
DONALD L. CALLAHAN
Registered Civil Engineer Of Louisiana
No. 3912

Seg. 5664

RECEIVED
MAY 16 1 34 PM '83
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION
METAIRIE, LOUISIANA

F. P. L. Nº 7
9 - 10 - 1980
"AS BUILT"
B.L.M. PERMIT DRAWING

No.	DATE	REVISION	BY
1	9-30-82	Revision	J.D.

UNITED GAS PIPE LINE COMPANY

ENGINEERING DEPARTMENT - HOUSTON, TEXAS

6" PIPELINE CONNECTING
CONOCO BLOCK 146 PLATFORM
SOUTH TIMBALIER AREA

SURVEYED BY CHANCE	DATE 11-79	CORRECT BY BTB	DATE 9/14/82
DRAWN BY LETSOS	DATE 9-30-80	APPROVED BY SHH	DATE 10/14/80
TRACED BY	DATE	APPROVED BY Donald L. Callahan	
CHECKED BY JJB	DATE 10-14-80		
PC 82 AFE 319	SCALE SHOWN		UC23162
	SHEET 1 OF 1		

OCS-G 4275

UNITED GAS PIPE LINE COMPANY 700 MILAM P O BOX 1478 HOUSTON, TEXAS 77001
TELEPHONE (713) 237-4123

May 21, 1980

H. P. Sieverding, Acting Manager
Bureau of Land Management
New Orleans Outer Continental Shelf
Hale Boggs Federal Building
500 Camp Street Suite 841
New Orleans, Louisiana 70130

Your File: OSC-G 4275

Our File: AFE 82-319 Connect Conoco Blks.
146 - 148 South Timbalier Area

Dear Sir:

This is to inform you that the 6" pipeline in the Gulf of Mexico connecting the above captioned blocks will be started on or about 6-3-80.

The contractor for this project will be Ingram Marine Constructors, Inc. of Lafayette, La.

This work will be done in accordance with your letter dated March 6, 1980 and United Gas Pipe Line Company Dwgs. UF 23040.

Yours truly,

C. R. Vandewater
Director of Engineering
Domestic Operations

AAP:ob

cc: R. L. Cook
J. C. Holder
C. E. Spinks
H. P. Parkman
W. H. Roberts
R. J. Simmons, Jr.

SN 5664

OCS-G 4275

South Timbalier Area

April 22, 1980

United Gas Pipe Line Company

Right-of-way

ACTION: APPLICATION APPROVAL AMENDED

The Action: Application Approved dated March 6, 1980, is hereby amended to include the following stipulation:

> The pipeline shall be routed around the anchor piling located on the center line, Line 1, at Shot Point 51.4.

John L. Rankin
Manager

cc: Geological Survey, USDI
Office of Pipeline Safety Operations, USDT

210/AJBritton/MHHolmes/4-22-80

3340 (210)

March 24, 1980

United Gas Pipe Line Company
Attention: John Stahl
P. O. Box 1478
Houston, Texas 77001

Gentlemen:

Please furnish proof of construction in accordance with 43 CFR 3340.3 on the following pipeline rights-of-way:

OCS-G Number	Decision Issued
3612	8-15-77
3624	8-15-77
3720	8-24-78
3824	7-24-78
3826	8-09-78
3832	8-07-78
3834	9-15-78
3865	11-09-78
3882	12-12-78
4013	3-21-79
4020	5-29-79
4035	9-11-79
4036	9-11-79
4050	9-26-79
4051	9-26-79
4275	3-06-80

H. P. Sieverding
Acting Manager

210:DWild:prb:3/24/80

SN5664

BEST AVAILABLE COPY

OCS-G 4275

South Timbalier Area

March 6, 1980

United Gas Pipe Line Company

Right-of-Way

ACTION: APPLICATION APPROVED

Your application for a right-of-way 200 feet in width for the construction, maintenance, and operation of a six (6) inch natural gas pipeline, 4.77 miles in length, from Conoco Inc.'s Platform "A" in Block 146, across Block 147, to Conoco Inc.'s Platform "A" in Block 148, all of which are located in South Timbalier Area, dated January 15, 1980, and amendment thereto dated February 4, 1980, with their attachments is hereby approved with the following additions and corrections:

1. The magnetic anomaly sites at Shot Point 47.3, Line 2, and Shot Point 17.2, Line 5, should be avoided by 150 meters when placing lay barge anchors.

2. The Trunkline 24-inch pipeline in Block 146, and the Trunkline 12-inch and Conoco 4-inch pipelines and cable radiating from Conoco's "A" structure in Block 148, should be buoyed to prevent possible damage during construction.

3. The ANSI 600 valves should not be subjected to a test-pressure differential greater than 1,440 psig.

4. The ANSI 600 valves, flanges, and fittings should not be subjected to a body test greater than 2,175 psig.

H. P. Sieverding
Acting Manager

cc: Geological Survey, USDI
Office of Pipeline Safety Operation, USDT

210MHolmes:rm:3/5/80

United States Department of the Interior

GEOLOGICAL SURVEY
434 IMPERIAL OFFICE BLDG . 3301 N CAUSEWAY BLVD
P. O BOX 7944
METAIRIE, LOUISIANA 70010
TEL (504) 837-4720

In Reply Refer To: OS-5

FEB 15 1980

Memorandum

To: Manager, Bureau of Land Management, 841 Hale Boggs Federal Building, 500 Camp Street, New Orleans, Louisiana 70130

From: Conservation Manager, Gulf of Mexico Region

Subject: United Gas Pipe Line Company's Pipeline Right-of-Way Application, BLM OCS-G 4275

We have reviewed the safety features and design specifications for the subject Right-of-Way Application, dated January 15, 1980, in accordance with the MOU dated August 1, 1974. It is for the construction, maintenance, and operation of a 6 5/8-inch natural gas pipeline 25,262 feet in length from Conoco's Platform "A", Ship Shoal Block 146, lease OCS-G 3176, to Conoco's Platform "A", Ship Shoal Block 148, lease OCS-G 1898.

Based upon information submitted in the application, the design characteristics of this pipeline are calculated to be as follows:

Pipeline Component	Maximum Allowable Operating Pressure/WP Ratings
Submerged component	2,853 psig
Riser component	2,282 psig
Valves, flanges, fittings	1,440 psig

The hydrostatic pressure test with water will be at 2,160 psig for 24 hours. The ANSI 600 valves should not be subjected to a test-pressure differential greater than 1,440 psig. The ANSI 600 valves, flanges, and fittings should not be subjected to a body test greater than 2,175 psig.

We recommend that the maximum allowable operating pressure (MAOP) for this pipeline be 1,440 psig (which is the hydrostatic test pressure divided by 1.5) and that this pressure may be exceeded only when hydrostatically pressure-testing the pipeline. We also recommend that the 6 5/8-inch flow safety valve (FSV) be provided with a minimum of three feet of cover, either through burial or with sandbags.

Our records indicate there are six existing pipelines within 4,000 feet of the subject pipeline. We recommend that the applicant be advised of the presence of these lines so that they can be avoided in the planning and conduct of his operations. The Pipeline Approval Section of the Area Office for Operations Support, Gulf of Mexico Area is available to assist you in this matter.

The technical aspects of the proposed pipeline are acceptable in accordance with appropriate regulations and standards.

We would appreciate receiving a copy of the plat showing the location of the pipeline as installed.

for Conservation Manager

United States Department of the Interior

IN REPLY REFER TO

OCS-G 4275

BUREAU OF LAND MANAGEMENT

NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE

HALE BOGGS FEDERAL BUILDING

500 CAMP STREET—SUITE 841

NEW ORLEANS, LA 70130

February 7, 1980

Memorandum

To: Conservation Manager
Gulf of Mexico OCS Operations

From: Manager
New Orleans OCS Office

Subject: Additional Information on Pipeline Right-of-Way Application

Enclosed is additional information which you may use to further evaluate the subject application.

If you have any questions regarding this matter, please contact Mr. Autry J. Britton of this office.

NOTED—MC INTOSH

Enclosure
1-Letter dated February 4, 1980
2-Drawing No. UAG 3409, Sheet 1 of 1, Revision 2 dated February 1, 1980

NOTED—SCHONEKAS FEB 8 1980

UNITED GAS PIPE LINE COMPANY
1200 SMITH • P O BOX 1478 • HOUSTON, TEXAS 77001
TELEPHONE (713) 237-4123

February 4, 1980

Mr. John L. Rankin, Manager
Bureau of Land Management
New Orleans OCS Office
Hale Boggs Federal Building
Suite 841
500 Camp Street
New Orleans, La 70130

Attn: Mr. Autrey Britton

Re: Your File - OCS-G 4275

Our File - AFE 82-319 - Connect Conoco
Blocks 146-148, South Timbalier
Area (Offshore, Louisiana)
Item 1 (BLM)

Dear Mr. Rankin:

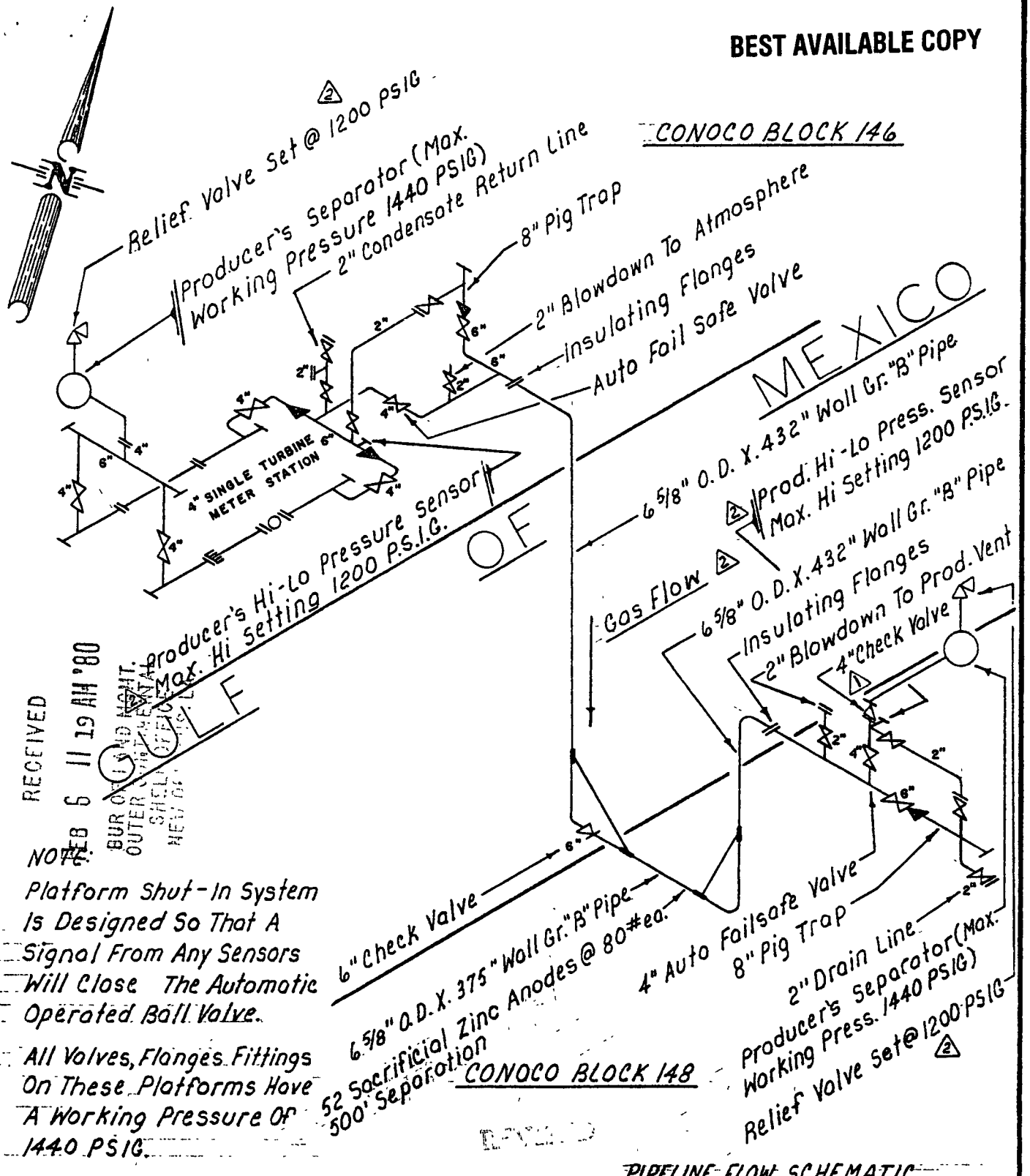
As requested by Mr. Autrey Britton, we have revised our Drawing UAG 3409, Pipeline Flow Schematic and accordingly enclose six (6) prints of Revision 2, dated 2-1-80.

Yours very truly,

United Gas Pipe Line Company

R. J. Simmons, Jr.
Vice President - Engineering

JS:ac
Enclosures



RECEIVED
FEB 6 11 19 AM '80
BUR OF OCS AND MGMT.
OUTER CONTINENTAL SHELF OFFICE
NEW ORLEANS, LA.

NOTE:

Platform Shut-In System Is Designed So That A Signal From Any Sensors Will Close The Automotic Operated Ball Valve.

All Valves, Flonges Fittings On These Platforms Have A Working Pressure Of 1440 PSIG.

The Design Characteristics Of This Pipeline Are In Compliance With DOT Regulations.

ROBERT L. COOK
Registered Mechanical Engr. Of Texas No. 9219

PIPELINE FLOW SCHEMATIC

NO.	DATE	REVISION	BY
2	7-1-80	Press. Chg.	R.L.
1	1-16-80	Add 4" Check Valve	R.L.

UNITED GAS PIPE LINE COMPANY
ENGINEERING DEPARTMENT - HOUSTON, TEXAS

SAFETY SHUT-DOWN SYSTEM
TO CONNECT TO CONOCO'S BLOCK 146
SOUTH TIMBALIER AREA

SURVEYED BY	DATE	CORRECT BY	DATE
DRAWN BY LETSOS	DATE 12-12-79	APPROVED BY DCN	DATE 1/3/80
TRACED BY	DATE	APPR BY R.L. Cook	
CHECKED BY CWP	DATE 1-3-80		
PC APE	SCALE NONE		
	SHEET 1 OF 1		

UAG 3409

Form 1541–3
(July 1965)
(formerly 4–1599 a)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCS-G 4275

CONFIRMATION/REPORT OF TELEPHONE CONVERSATION

TO	Name: John STAHL	FROM	Name: AUTRY BRITTON
	Office: United Gas P/L Co.		Office: OCS – OPS
	Location: HOUSTON, TX.		Location: New Orleans, La.
	Telephone Number: (713) 237-4411		Telephone Number: 589-3522

Purpose of Call: to request the following information per USGS request: Ref: Safety Schematic, Dwg. # UAG 3409

- Setting of Pressure relief valve on Conoco's Block 148 Platform should be 1200 psig instead of 1300 psig.
- The high pressure sensor setting on Conoco's Block 148 Platform should be set @ 1200 psig.
- A flow direction arrow should be shown on the drawing.

Explanatory Remarks:

Mr. Stahl stated the Schematic will be revised to include the above requested information and copies submitted to BLM for review.

1-30-80
(Date)

Autry J Britton
(Signature)

CONFIRMATION COPY

427540-4

IN REPLY REFER TO

OCS-G 4275

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE

HALE BOGGS FEDERAL BUILDING

500 CAMP STREET–SUITE 841

NEW ORLEANS, LA 70130

January 24, 1980

Memorandum

To: Conservation Manager
Gulf of Mexico OCS Operations

From: Manager
New Orleans OCS Office

Subject: Review of Pipeline Right-of-way Application

In accordance with the memorandum of understanding between the Bureau of Land Management and U. S. Geological Survey signed August 1, 1974, the subject application is enclosed.

Please review the technical aspects of the proposed pipeline. If you have any questions regarding this matter, please contact Mr. Autry J. Britton of this office.

Enclosures
1-Application dated January 15, 1980
2-Drawing No. UAG 3409, Revision 1, dated 1/16/80
3-Drawing No. UAG 3400, Sheets 1 and 2 of 2 dated 1/9/80
4-Drawing No. UC 23038, Sheets 1 and 2 of 2 dated 1/9/80

NOTED—MC INTOSH

UNITED GAS PIPE LINE COMPANY
1200 SMITH • P O BOX 1478 • HOUSTON, TEXAS 77001
TELEPHONE (713) 237-4123

January 15, 1980

Mr. John L. Rankin, Manager
Bureau of Land Management
New Orleans OCS Office
Hale Boggs Federal Building
Suite 841
500 Camp Street
New Orleans, LA 70130

Re: AFE 82-319 - Connect Conoco Blocks 146-148,
South Timbalier Area (Offshore Louisiana)
Item 1 (BLM)

Dear Mr. Rankin:

Pursuant to the authority granted in Section 5(e) of the Outer Continental Shelf Lands Act (67 Stat. 462) (43 U.S.C. 1331), as amended (92 Stat. 629), and in compliance with the regulations contained in Title 43 CFR 3340, United Gas Pipe Line Company hereby applies, in duplicate, for a right of way two hundred feet (200') in width to construct, maintain, and operate a 6" pipeline as shown on the six (6) prints each of the following drawings attached hereto and made a part hereof:

Proposed 6" Pipeline to Connect Conoco Block 146 Platform - South Timbalier Area, Drawing UC 23038, sheets 1 and 2 of 2, and UAG 3400, sheets 1 and 2 of 2.

This pipeline will be used to gather and transport natural gas from Conoco's Platform in Block 146 to Conoco's Platform in Block 148, South Timbalier Area, in the Gulf of Mexico. The tentative construction date for the pipeline is March 15, 1980, with completion being late April, 1980.

This application (and any amendments made hereto) is made with our full knowledge and concurrence with the OCS Lands Act (43 U.S.C. 1331 et seq.), as amended, (P.L. 95-372), including the following: Sec. 5(e) addressing pipeline rights-of-way, Requirements of the Federal Energy Regulatory Commission notice of hearing, transportation and purchase of oil and gas without discrimination: Sec. 5(f)(1) addressing operation of pipelines in accordance with competitive principles, including open and nondiscriminatory access to both owner and non-owner shippers; Sec. 5(f)(2) which may allow exemption of the requirements in Sec. 5(f)(1); and Sec. 21(b), addressing the assuring of maximum environmental protection, including the safest practices for pipeline burial.

Additionally, we expressly agree that if any site, structure, or object of historical or archaeological significance should be discovered during the conduct of any operations within the permitted right-of-way, we shall report immediately such findings to the Manager, New Orleans OCS Office, and make every reasonable effort to preserve and protect the cultural resource from danage until the Manager, New Orleans OCS Office, has given directions as to its preservation.

Total length (25,196.54') of proposed 6" pipeline is along proposed curve as shown on BLM Drawing (UC23038). Discrepancy in total length between BLM Drawing (UC23038) and the Archeological, Engineering & Hazard Study Report (total length 25,262.50') by John E. Chance & Associates, Inc., lies in the fact the BLM shows the route along the proposed curve and John E. Chance & Associates, Inc., shows route along P.I.

In accordance with applicable regulations, the applicant states that he will mail to each lessee or right-of-way holder whose lease or right of way is affected by this application, by certified mail, return receipt requested, copies of this application and the maps attached hereto. Copies of the return receipts showing service upon lessees and right-of-way holders will be forwarded to your office when received.

As set forth in the February 13, 1978 guidelines, the applicant agrees to the following:

1. All valves and taps will be buried to a minimum of one foot (1') coverage.

2. Archeological, Engineering & Hazard Study of the proposed right-of-way route is included with the application (2 copies).

3. Originals of Side Scan Sonar and Magnetometer are attached.

4. An as-built survey establishing the location of the completed pipeline within an accuracy of ±100 feet, an as-built map of 1":4000', along with a copy of the diving inspector's report will be provided within ninety (90) days after completion of the line.

5. Sensing devices and fail close valves will be provided as set forth in the attached schematic Drawing UAG 3409 (6 copies).

6. The pipeline will be buried since the water depth does not exceed two hundred feet (200').

7. Proper notification prior to construction and hydrostatic testing as set forth in the February 13, 1978 guidelines will be adhered to.

8. Any breaks, leak failures, or accidents will be reported as requred.

9. The water depths over the complete route of the pipeline are as shown in the profile on the submitted drawing.

10. The product to be transported is natural gas.

11. Attached is Information for Pipeline Right of Way.

12. Nondiscrimination in Employment form is attached (2 copies).

13. Company contact after construction is completed:

C. H. Young, Jr.
United Gas Pipe Line Company
P. O. Box 51628
New Orleans, Louisiana 70151
Telephone: (504) 525-2312

Enclosed is Check No. 81707 in the amount of $475.00 for the first five (5) years' rental, computed on a total of 4.77 miles of right of way for the years 1980, 1981, 1982, 1983 and 1984. This check includes $100.00 filing fee. Inquiries concerning this application may be directed to the applicant at its offices at P. O. Box 1478, Houston, Texas 77001, ATTENTION: Mr. John Stahl.

It is our understanding that the originals listed above as No. 3 will be returned to us after they have served their purpose.

If our plans meet with your approval, we will appreciate your issuing us a Decision for this installation.

Yours very truly,

UNITED GAS PIPE LINE COMPANY

By R. J. Simmons, Jr.
R. J. Simmons, Jr.
Vice President - Engineering

JS:ac
Enclosures

cc: The District Engineer
U. S. Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160
ATTENTION: LMNOD-S

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INFORMATION FOR PIPELINE RIGHT-OF-WAY

1. Contact on technical points - Mr. C. R. Vandewater
   United Gas Pipe Line Company
   P.O. Box 1478
   Houston, Texas 77001
   713/237-4537

2. Project title:

   Connect Conoco Block 146, South Timbalier Area.

3. Sizes, wall thickness, weight, grade, and class of pipe and risers.

   MAIN LINE: 6 5/8" O.D. x .375" Wall, 25.03 lbs/ft., API API 5L Grade "B", Class 1 location, Type 0.60 SMYS Design Factor.

   RISER: 6 5/8" O.D. x .432" Wall, 28.57 lbs/ft., API 5L Grade "B", Class 1 location, Type 0.50 SMYS Design Factor.

4. Description of cathodic protection system.

Type:	Bracelet - Cylindrical Tapered
Size:	6 5/8" I.D. x 9 5/8" O.D.
Weight:	80 lbs. minimum net Zinc each
Spacing:	One bracelet per 500 feet of pipe
Anode Life:	49 years
Number of Anodes:	Total of 52

CALCULATIONS FOR ANODES

Assume 1.67% of coated pipe surface as bare
Current requirements 4.5 MA/sq. ft. for bare pipe
Anode consumption rate 25 lbs/ampere/year
Sq. ft. of bare pipe per 500 ft. of coated pipe =

$$3.1416 \times \frac{6.625}{12} \times 500 \times 0.0167 = 14.48 \text{ sq. ft.}$$

Zinc required per year per bracelet =
$14.48 \times 0.0045 \times 25 = 1.63$ lbs/yr.

$$\text{Anode life} = \frac{80}{1.63} = 49.10 \text{ years}$$

5. Description of external pipeline coating.

   .014" - Thin Film Fusion Bonded Coating - Scotchkote 212

6. Description of internal protective measures.

A chemical inhibitor treatment program will be applied if gas analysis indicates it is required.

7. Specific gravity of the empty pipe.

1.63

8. Specific gravity of product transported.

Natural Gas - 0.60 Condensate - 0.70

9. Maximum & minimum operating pressure.

Maximum - 1200 psig Minimum - 1180 psig

10. Maximum allowance pressure and capacity.

Maximum working pressure 1,440 psig - 10 MMCFD
Initial flow conditions at 1,200 psig
Class I location, Type 0.60 SMYS Design Factor
Max. Allowable Working Pressure (MAP) =

$$\frac{2st\ F}{D} = \frac{2(35,000)(.375)(.6)}{6.625} = 2,377 \text{ psig}$$

Class I location, Type 0.50 SMYS Design Factor

$$MAP = \frac{2st\ F}{D} = \frac{2(35,000)(.432)(.5)}{6.625} = 2,282 \text{ psig}$$

ANSI 600 Valves and Flanges
WP = 600 x 2.4 = 1,440 psig
Therefore, the MAOP will be 1440 psig

11. Hydrostatic test pressure and period of time of test upon completion.

Minimum Test Pressure 2160 psig for 24 hours

12. Size and location of pumps and prime movers.

No pumps or movers on this line.

13. Construction Information (anticipated at time of application).

A. Starting Date

Mid-February, 1980 - contingent upon receipt of FERC, BLM, and material.

B. Method of construction

Reel or conventional lay barge

C. Method of burial

Jet Barge with minimum 3-foot cover

D. Time required to lay pipe

5 weeks

E. Time required to complete project

8 weeks

4275-1-7

NOTE: This form must be executed as an original.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NONDISCRIMINATION IN EMPLOYMENT

As a condition precedent to the approval of the granting of the subject pipeline right-of-way, the grantee UNITED GAS PIPE LINE COMPANY hereby agrees and consents to the following stipulation which is to be incorporated into the application for said right-of-way.

During the performance of this contract the grantee agrees as follows:

During performance under this grant, the grantee shall fully comply with paragraphs (1) through (7) of section 202 of Executive Order 11246 as revised (reprinted in 41 CFR 60-1.4(a)), which are for the purpose of preventing discrimination against persons on the basis of the race, color, religion, sex or national origin. Paragraphs (1) through (7) of section 202 of Executive Order 11246 as amended are incorporated in this grant by reference.

R. J. Simmons, Jr.
Signature of Grantee
R. J. Simmons, Jr. - Vice President-Engineering
Date: JANUARY 15, 1980

4275-1-8

UNITED GAS PIPE LINE COMPANY

1200 SMITH • P.O. BOX 1478 • HOUSTON, TEXAS 77001
TELEPHONE (713) 237-4123

January 15, 1980

The District Engineer
U. S. Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Re: Your File - LMNOD-S

Our File - AFE 82-319 - Connect Conoco Blocks 146-148, South Timbalier Area (Offshore Louisiana) Item 1 (Corps)

Dear Sir:

This company proposes to construct 4.77 miles of 6" natural gas pipeline in the Gulf of Mexico, from Conoco's Platform in Block 146 to Conoco's Platform in Block 148, South Timbalier Area.

In this connection, we enclose completed Form 4345 together with seven (7) prints of our Drawing UAG 3400, sheets 1 and 2 of 2.

If our plans and specifications meet with your approval, we will appreciate being issued a permit for this installation.

Yours very truly,

UNITED GAS PIPE LINE COMPANY

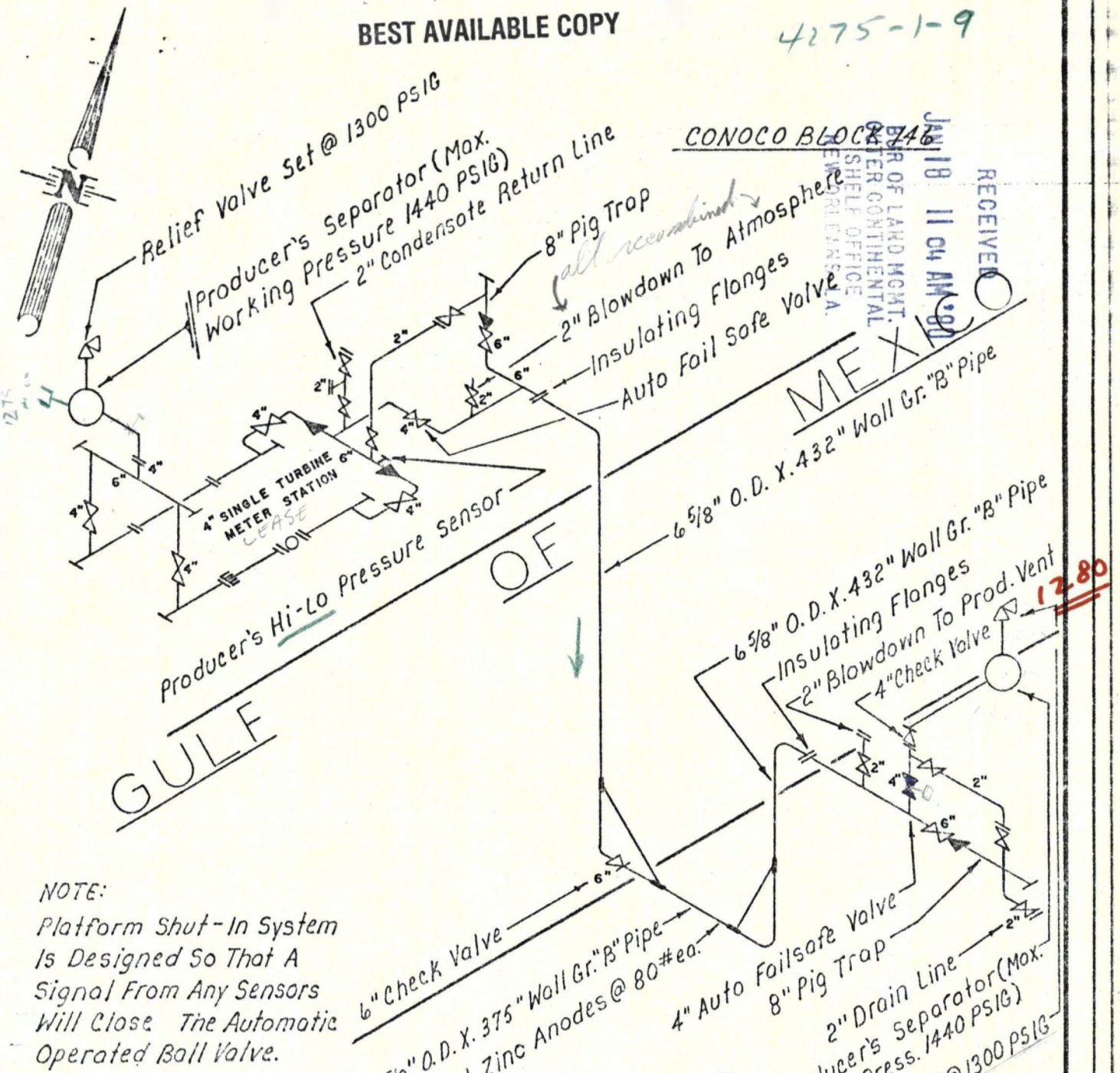
R. J. Simmons, Jr.
Vice President - Engineering

JS:ac

cc: Mr. John L. Rankin, Manager
Bureau of Land Management
New Orleans OCS Office
Hale Boggs Federal Bldg., Suite 841
500 Camp Street
New Orleans, LA 70130

BEST AVAILABLE COPY

4275-1-9



NOTE:

Platform Shut-In System Is Designed So That A Signal From Any Sensors Will Close The Automatic Operated Ball Valve.

All Valves, Flonges Fittings On These Platforms Have A Working Pressure Of 1440 PSIG.

The Design Characteristics Of This Pipeline Are In Compliance With D.O.T. Regulations.

ROBERT L. COOK
Registered Mechanical Engr. Of Texas No. 9219

PIPELINE FLOW SCHEMATIC

1	1/16/80	RL	Add 4" Check Valve		
NO.	DATE	BY	REVISION		

UNITED GAS PIPE LINE COMPANY
ENGINEERING DEPARTMENT - HOUSTON, TEXAS

SAFETY SHUT-DOWN SYSTEM
TO CONNECT TO CONOCO'S BLOCK 146
SOUTH TIMBALIER AREA

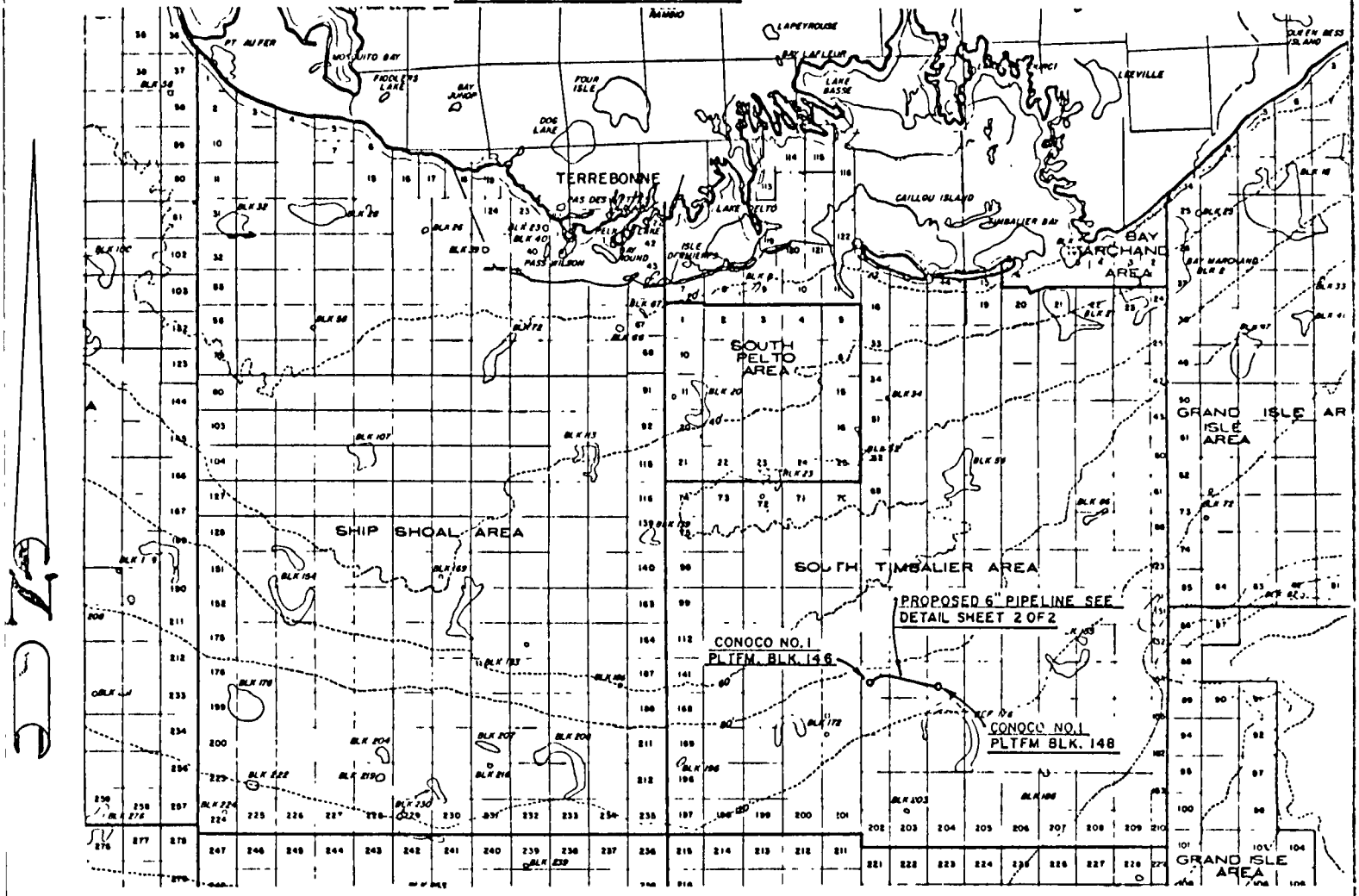
SURVEYED BY	DATE	CORRECT BY	DATE
DRAWN BY LETSOS	DATE 12-12-79	APPROVED BY DCN	DATE 1/3/80
TRACED BY	DATE	APPR BY R.L. Cook	
CHECKED BY CHP	DATE 1-8-80		
PC AFE	SCALE NONE	UAG 3409	
	SHEET 1 OF 1		

OCS-G 4275

4275-1-10

BEST AVAILABLE COPY

LOUISIANA



LOCATION SKETCH

60,000' 0 60,000'

Scale in Feet

1. THIS PIPELINE IS TO BE USED TO TRANSPORT NATURAL GAS FROM OFFSHORE PLATFORMS TO A MAIN LINE PIPELINE SYSTEM.
2. PIPE SHALL BE BURIED 3' BELOW WATER BOTTOM
3. THE PIPELINE WILL BE LAID BY JETTING, WITH THE SPOIL SCATTERED SO AS NOT TO DECREASE THE DEPTH OF THE WATER BY MORE THAN 6".

OCS-G 4275

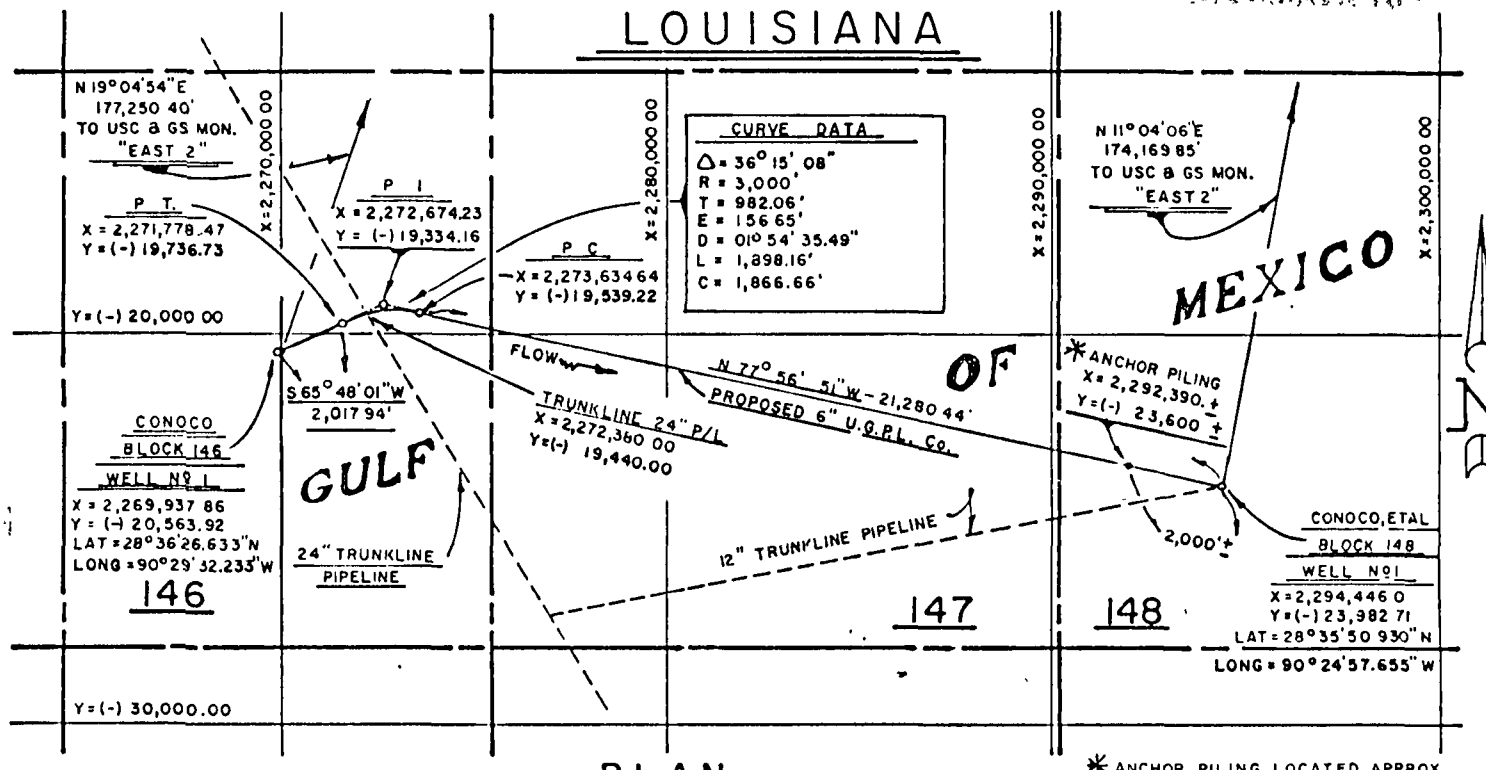
UAG 3400
SHEET 1 OF 2

APPLICATION BY:
UNITED GAS PIPE LINE Co.
DATE: 1-9-80

PROPOSED 6" PIPELINE TO CONNECT
CONOCO BLOCK 146 PLATFORM
SOUTH TIMBALIER AREA

4278-1-11

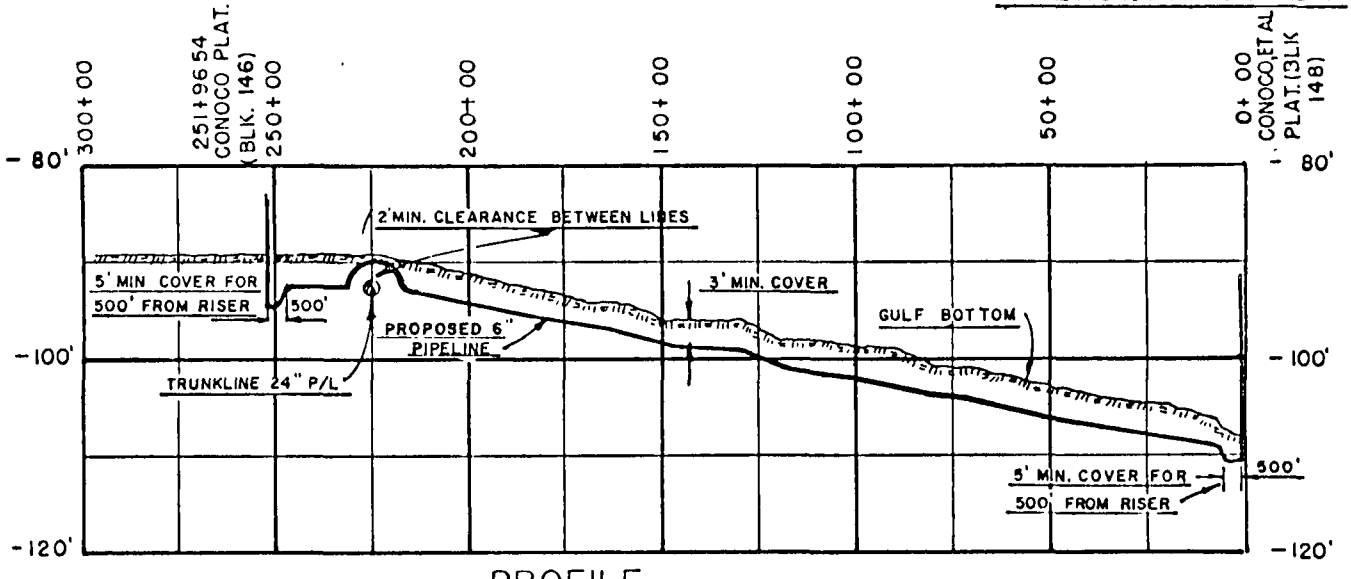
BEST AVAILABLE COPY



PLAN

5,000' 0 5,000'

* ANCHOR PILING LOCATED APPROX. 2,000' FT WEST OF CONOCO, ET AL BLOCK 148 WELL NO 1 TO BE LOCATED & BUOYED PRIOR TO CONSTRUCTION, & PIPELINE TO BE LAID IN SUCH A MANNER AS TO MISS ANCHOR PILING



PROFILE

5,000' 0 5,000' HORIZ.

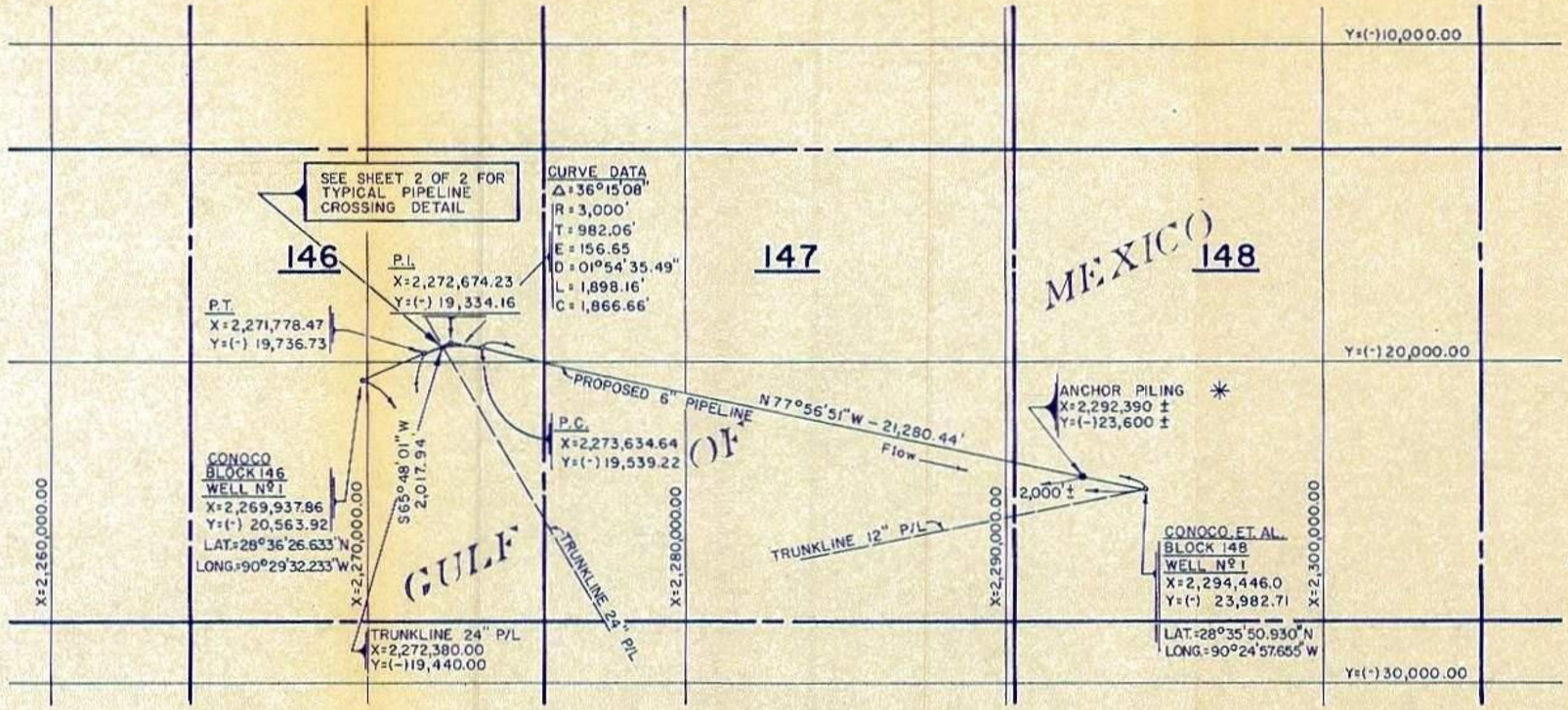
20' 0 20' VERT.

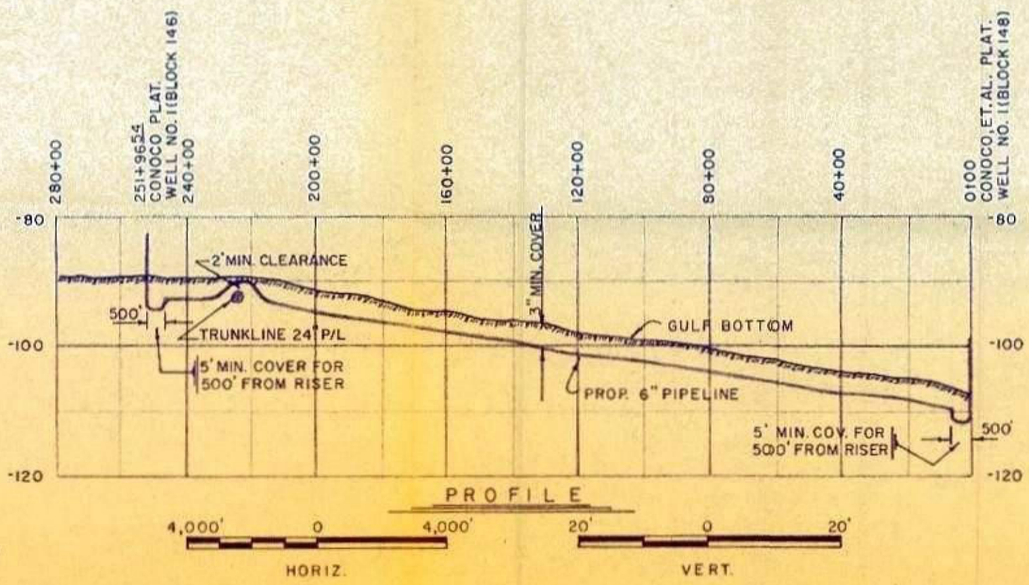
UAG 3400
SHEET 2 OF 2

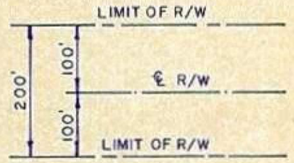
APPLICATION BY:
UNITED GAS PIPE LINE Co.
DATE: 1·9·80

PROPOSED 6" PIPELINE TO CONNECT
CONOCO BLOCK 146 PLATFORM
SOUTH TIMBALIER AREA

SOUTH TIMBALIER AREA







TYPICAL R/W DETAIL
LENGTH = 25,196.54'

NOTE: THIS PIPELINE IS TO BE USED TO TRANSPORT NATURAL GAS FROM OFFSHORE PLATFORMS TO A MAIN LINE PIPELINE SYSTEM.

* ANCHOR PILING LOCATED APPROXIMATELY 2,000 FT. WEST OF CONOCO, ET. AL. BLOCK 148 WELL NO. 1, TO BE LOCATED AND BUOYED PRIOR TO CONSTRUCTION, AND PIPELINE TO BE LAID IN SUCH A MANNER AS TO MISS ANCHOR PILING.

THE DESIGN ON THIS PIPELINE RIGHT OF WAY COMPLIES WITH D.O.T. REGULATIONS.
DONALD L. CALLAHAN
REG. NO. DONALD L. CALLAHAN
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
Registered Civil Engineer Of Louisiana
No. 3912

STATE OF LOUISIANA

RECEIVED
JAN 18 11 04 AM '80
BUR. OF LAND MGMT.
OUTER CONTINENTAL SHELF OFFICE
NEW ORLEANS, LA.

OCS-G 4275

B L M PERMIT DRAWING

BEST AVAILABLE COPY

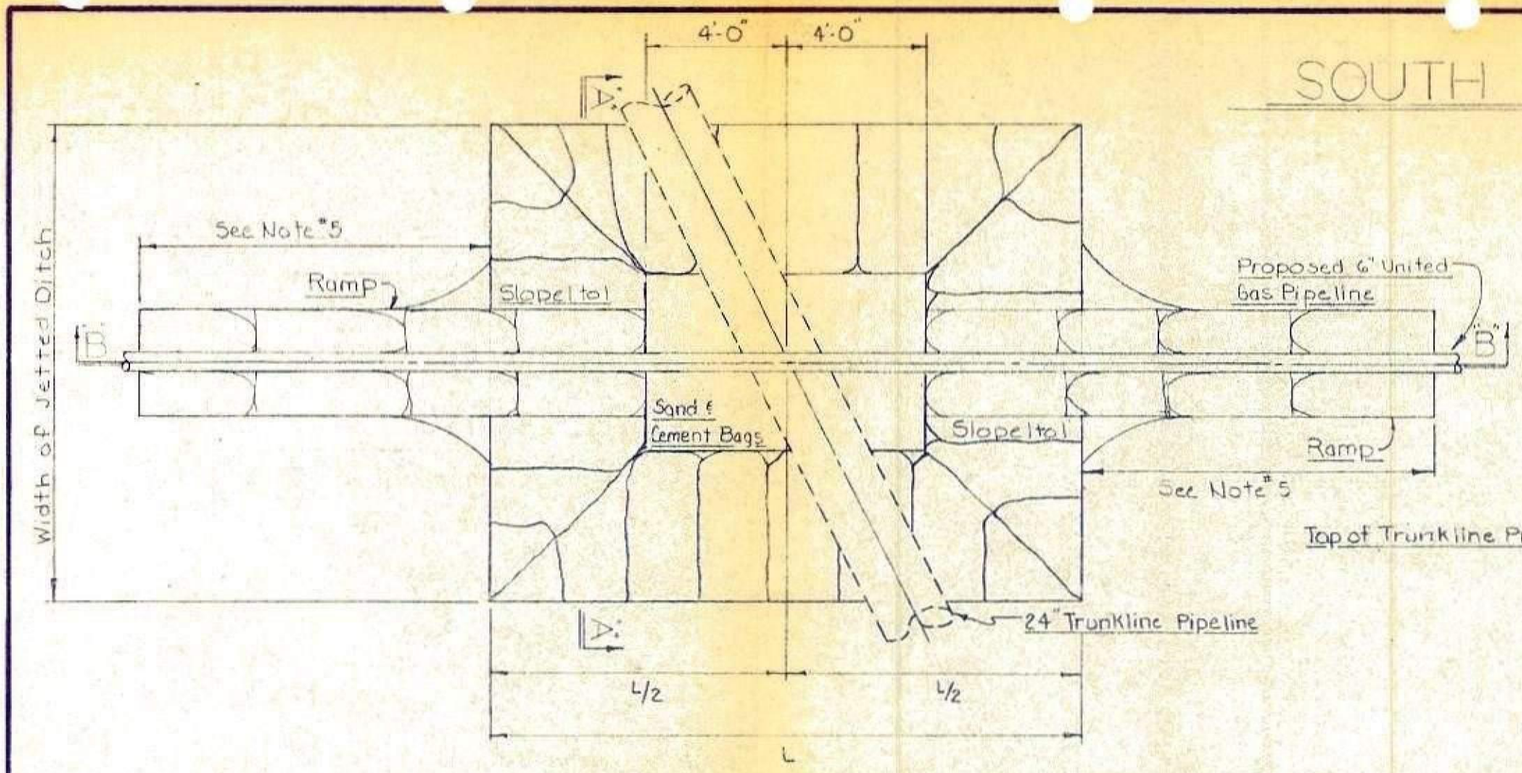
UNITED GAS PIPE LINE COMPANY
ENGINEERING DEPARTMENT - HOUSTON, TEXAS

PROPOSED 6" PIPELINE TO CONNECT
CONOCO BLOCK 146 PLATFORM
SOUTH TIMBALIER AREA

SURVEYED BY CHANCE	DATE 11-79	CORRECT BY	DATE
DRAWN BY LETSOS	DATE 11-13-79	APPROVED BY J.H.III	DATE 1-9-80
TRACED BY	DATE	APPR. BY	
CHECKED BY W.L.A.	DATE 1-9-80	Donald L. Callahan	
PC AFE	SCALE 1" = 1,000'		
	SHEET 1 OF 2		UC 23038

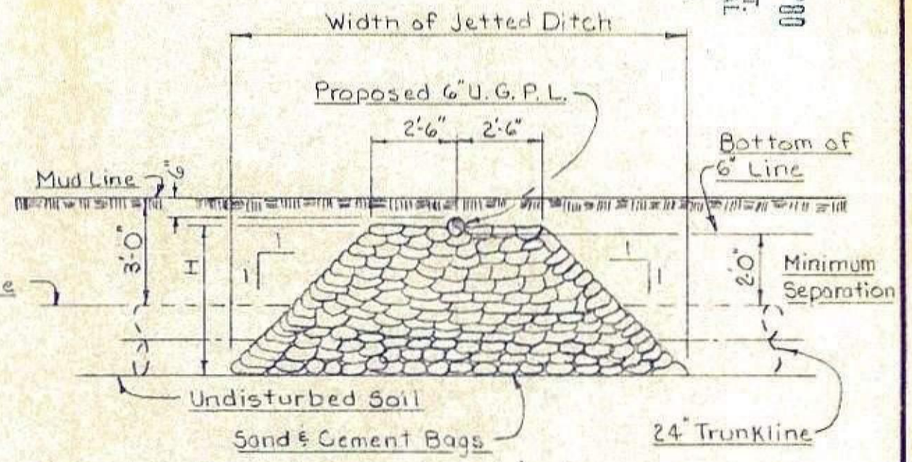
BY / REVISION / DATE / No.

SOUTH TIMBALIER AREA



TYPICAL PIPELINE CROSSING

Scale: 1/4" = 1'-0"



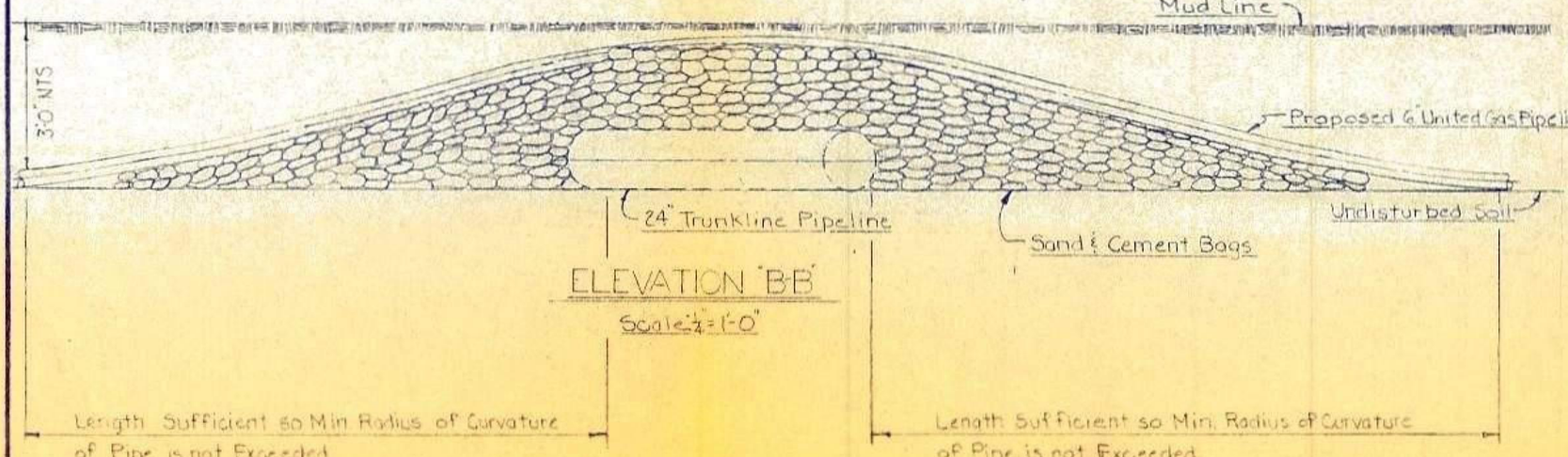
SECTION "A-A"

Scale: 1/4" = 1'-0"

Coordinates	Line Size	Owner	Separation Between Lines	Height of Sand Bag Pile "H"	Size of Sand Bag Pile Base "L"	Quantity of Sand Bags Required
X= 2,272,380.00 Y= 19,440.00	24"	Trunk-line	2'-0"	4'-3"	17'-0"	* 600

Notes:

* 1. Based on 1 Cu. Ft. Per Bag - Note Number of Bags is Estimated on Conditions Shown in Above Table & on Details on the Left.
2. Sand & Cement Mixture to be 1 Part Cement to 3 Parts Sand by Weight.
3. Bags Shall be Made of Closely Woven Material with Wicking Action.
4. After Filling the Bag it Shall be Closed by Sewing or the Equivalent but not by Bunching and Tying the Ends.
5. Ramps to be of Sufficient Length, Width, & Depth to Stabilize Naturally-Supported Pipe.



ELEVATION "B-B"

Scale: 1/4" = 1'-0"

BLM PERMIT DRAWING
PIPELINE CROSSING DETAIL

UNITED GAS PIPE LINE COMPANY

ENGINEERING DEPARTMENT - HOUSTON, TEXAS

PROPOSED 6" PIPELINE TO CONNECT
CONOCO BLOCK 146 PLATFORM
SOUTH TIMBALIER AREA

DESIGNED BY DFCN.	DATE 12-79	CORRECT BY	DATE
DRAWN BY L.L.S.	DATE 12-28-79	APPROVED BY DFCN	DATE 1/3/80
TRACED BY	DATE	APPR. BY	
CHECKED BY C H P	DATE 1-3-80		
PC AFE 82-319	SCALE Shown		
	SHEET 2 OF 2	UC 23038	

BY / REVISION / DATE / No.

Form 1541–3
(July 1965)
(formerly 4–1599 a)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCS-G 4275

CONFIRMATION/REPORT OF TELEPHONE CONVERSATION

TO	Name: AUTRY J. BRITTON	FROM	Name: John Stahl
	Office: OCS - OPS		Office: United Gas P/L Co.
	Location: New Orleans, La.		Location: Houston, TX.
	Telephone Number: 589-3522		Telephone Number: (713) 237-4411

Purpose of Call:

To inform me that for the subject Pipeline, United Gas P/L Company will purchase gas on platform in Block 146 after it is metered and move the gas to platform in Block 148 for processing. After processing the gas will then be put into Trunkline's 12-inch pipeline. Mr. Stahl indicated that a check valve boarding platform in Block 148 was omitted and the schematic will be revised to include one.

Explanatory Remarks:

1-16-80
(Date)

Autry J. Britton
(Signature)

CONFIRMATION COPY

4275.

BEST AVAILABLE COPY Revised 1/15/80

PIPELINE APPLICATION CHECK LIST

INSTRUCTIONS: Check the blank on the left if the statement is affirmative or correct data submitted. Make N/A (not applicable) where appropriate. Place an X in the blank if the answer is no or if the data was not submitted. All blanks marked X must be rectified to a check (or qualified) before approval can be given for the pipeline. Enter data in the blanks furnished.

A. Verify the following general information:

I. SOP

✓ a. Do the leases involved on the P/L application appear on the current Suspension of Production (SOP) Lease List?

II. POD

✓ a. Is the pipeline presently covered by an approved Plan of Development (POD)?

III. Lease Stipulation Yes _____ No ✓
If yes, does lease require an archaeological survey? Yes _____ No _____

IV. USGS Application

___ a. The applicant is a Federal lease holder and the pipeline is to be used for such purposes as:

_____ 1. Moving production to a control point for gathering, treating, storing, or measuring.

_____ 2. Delivery of production to a point of sale.

_____ 3. Delivery of production to a pipeline operated by a transportation company.

_____ 4. Moving fluids in connection with lease operations, such as for injection purposes.

___ b. The pipeline is within the lease boundary owned by the operator.

___ c. Pipeline is within contiguous lease boundaries.

___ d. Pipeline is within noncontiguous lease boundaries. (Note: Items b, c, and d all fall under 30 CFR 250.18)

___ e. Lessee's "intent to cross" letters are received. (Wait 30 days for letters of objection. Only objections concerning interference with lease operations will be considered.)

___ f. Pursuant to Secretarial Order 2974 of April 30, 1975, check the following:

___ 1. FWS notified _____.

___ 2. FWS comment received _____.

___ 3. BLM notified _____.

___ 4. BLM comment received _____.

___ 5. Environmental Impact Evaluations completed _____.

___ 6. If related to new POD/P, date of POD/P approval _____.

V. BLM Application

✓ a. The pipeline must not be a gathering line.

VI. DOT Pipelines

✓ a. The pipelines are shoreward of the outlet flange at the last process facility (If yes, include 49 CFR 192 for gas P/L or 49 CFR 195 for oil P/L in approval.)

VII. DOI Pipelines

N/A a. Pipelines not covered by VI above.

B. Verify that the information shown on the safety equipment schematic drawing contains the following:

✓ I. The pipeline leaving the platform receiving production from the platform is equipped with high- and low-pressure sensors to directly or indirectly shut-in the well or wells on the platform.

✓ II. The pipeline delivering production to production facilities on the platform is equipped with automatic fail close valve tied into the automatic and remote shut-in system.

NA III. The pipeline crossing the production platform which does not deliver production to the platform, but which may or may not receive production from the platform, is equipped with high- and low-pressure sensors connected to an automatic fail close valve located in the upstream portion of the pipeline at the platform. In addition, the sensors are tied into either the platform's automatic and remote shut-in system or an independent remote shut-in system.

✓ IV. The pipeline boarding the platform is equipped with a check valve.

✓ V. The pipeline leaving the platform is equipped with a check valve.

NA VI. The pipeline pump is shown as well as its associated high- and low-pressure shut-in device.

NA VII. If pipeline pilots are located on any pressure vessel or downstream of a departing check valve, all flow restriction(s), (backpressure valve(s), chokes), downstream of the process vessel, or wellhead, and upstream if check valve(s) must be indicated on the schematic.

If flow restriction(s) exist downstream of any process vessel a a low pressure sensor must be installed between the flow restriction(s) and the departing check valve(s). High-pressure sensor(s) must be installed downstream of the wellhead choke.

Reference API RP 14C, Pages 23 and 59

✓ VIII. Pressure source is drawn into the schematic with the following:

✓ a. Source SEPARATOR.

✓ b. Maximum source pressure, psig 1440.

✓ IX. The rated working pressures of all separators, pumps, compressors, valves, flanges, and fittings upstream of and including the boarding automatic fail close valve are shown.

C. Verify that the location plat depicts the following:

✓ I. Location of pipeline

✓ II. Length of pipeline

✓ III. Size of pipeline

✓ IV. Type of service

✓ V. Direction of flow

✓ VI. X-Y coordinates of key ponts

D. Verify that the information given on the submitted data sheet is completed; and calculate the $MAOP_{sc}$, $MAOP_{rc}$, $MAOP_{p/l}$.

I. General information for calculating $MAOP_{sc}$, $MAOP_{rc}$, etc.

a. Size of pipeline, inches 6 5/8"

b. Weight of pipeline, lbs./ft. 28.03 lbs/ft.

c. Grade of pipeline API 5L. GRADE "B"

d. Wall thickness, inches 0.375"

e. Size of riser, inches 6 5/8"

f. Weight of riser, lbs./ft. 28.57 lbs/ft.

g. Grade of riser API 5L GRADE "B"

h. Wall thickness of riser, inches 0.432"

i. Minimum WP rating of piping, fittings, valves, psig 1440 PSIG

j. Hydrostatic test pressure (HTP), psig 2160 PSIG

k. Hold time, hrs. 24

l. Classification of pipeline (oil or gas) GAS

m. Type of pipe (ASTM A-106, API-5L, etc.) API 5L
NOTE: If ASTM A-53 Reference API RP 14E, Section 2.1.a(2)

II. DOI Pipelines

a. IP @ SMYS for submerged pipeline $\leq \frac{2st}{D} =$ _____

b. (.72 x IP @ SMYS) for submerged pipeline = _____ ($MAOP_{sc}$)

c. IP @ SMYS for riser = $\frac{2st}{D}$ = _____

d. (.60 x IP @ SMYS) for riser = _____ ($MAOP_{rc}$)

e. See Ii above ($MAOP_{pfv}$) = _____ ($MAOP_{pfv}$)

_____f. Is 1.25 MSP $\leq$ HTP $\leq$ .95 (IP @ SMYS for smaller IP of a and c above)

_____ $\leq$ _____ $\leq$ _____

_____g. HTP/1.25 = _____

_____h. Is HTP hold time $\geq$ 2 hours

_____i. MAOP of receiving pipeline from IV _____.

_____j. $MAOP_{p/l}$ = the smallest of b, d, e, g, and i above

_____ ($MAOP_{p/l}$)

_____k. Test pressure ANSI & API carbon steel RTJ & RF Flanges and Valves

_____ (From Table 3.1, Page 31 API RP 14E)

_____l. Is K > HTP

NOTE: If note, add statement in approval letter to insure valves and flanges are note subjected to test pressure.

_____m. Is j $\geq$ MSP

_____ $\geq$ _____

If not, one of the following is necessary:

_____ 1. Redundant safety equipment is afforded.

_____ 2. A departure from the requirement for redundant safety equipment.

III. DOT Pipelines

a. IP @ SMYS for submerged pipeline = $\frac{2st}{D}$

b. (.72 x IP @ SMYS) for submerged pipeline = 2853 ($MAOP_{sc}$)

c. IP @ SMYS for riser = $\frac{2st}{D}$ =

d. For oil P/L (.60 x IP @ SMYS) for riser = N/A ($MAOP_{rc}$)

For gas P/L (.50 x IP @ SMYS) for riser = 2282

e. See Ii above 1440. ($MAOP_{pfv}$)

f. Limit of Testing

N/A 1. For oil P/L

Is 1.25 MSP ≦ HTP ≦ .95 (IP @ SMYS for smaller IP of a and c above)

____ ≦ ____ ≦ ____

✓ 2. For gas P/L riser component:

Is 1.50 MSP = HTP of riser = .95 (IP @ SMYS of c above)

2160 ≦ 2160 ≦ 4336

✓ 3. For gas P/L submerged component:

Is 1.25 MSP = HTP of submerged component = .95 (IP @ SMYS of a above

1800 ≦ 2160 ≦ 3764

g. $MAOP_{p/l}$ based on HTP

1. For oil P/L HTP 1.25 = N/A

2. For gas P/L riser component HTP/1.5 = 1440 of riser

3. For gas P/L submerged component HTP/1.25 = 1728 of submerged component

h. For oil P/L Is HTP hold time $\geq$ 24 hours N/A

For gas P/L Is HTP hold time $\geq$ 8 hours ✓

i. MAOP of receiving pipeline from IV NA

j. $MAOP_{p/l}$ = the smallest of b, d, e, g, and i above

1440 ($MAOP_{p/l}$)

k. Test pressure ANSI & API carbon steel RTJ & RF flanges and valves

2175 (From table 3.1, page 31 API RP 14E)

✓ l. Is k > HTP

NOTE: If not, add statement in approval letter to insure valves and flanges are not subjected to test pressure.

m. Is j $\geq$ MSP

1440 $\geq$ 1440

If not, one of the following is necessary:

_____ 1. Redundant safety equipment is afforded

_____ 2. A departure from the requirement for redundant safety equipment.

 NA

IV. Pipeline Receiving Production (Installed Prior to July 31, 1977)

		Submerged Component	Riser
a.	Size, inches	12"	
b.	Grade		
c.	Wall thickness, inches		
d.	Minimum working pressure of valves and flanges	(MAOPpfv)	
e.	Date of last hydrostatic test	August 18, 1971	
f.	HTP, psig	1600	
g.	Hold time, hrs.		
h.	MAOP based on HTP HTP/1.25	1280	
i.	IP@SMYS for submerged P/L 2ST/D		
j.	(.72 x IP@SMYS) for submerged P/L	(MAOPsc)	
k.	IP@SMYS for riser 2ST/D		
l.	(.60 x IP@SMYS) for riser	(MAOPrc)	

m. If the receiving P/L is a DOT gas P/L and has not been tested since July 1, 1971, then what is the HAOP to which the segment was subjected during the 5 years prior to July 1, 1976? N/A

n. MAOP of receiving P/L ≥ MAOP of proposed P/L ≥ MSP of proposed P/L

1280 ≥ 1440 ≥ 1440

*HAOP - Highest actual operating pressure

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E. Verify that the information was given on the submitted data sheet is complete; and calculate the life expectancy of the pipelines corrosion protection ($LE_{p/l}$)

I. General Information for Calculating $LE_{p/l}$

✓ a. Type of corrosion protection (platform anodes, (P/L anodes) or rectifier

✓ b. If pipeline anodes are used:

1. Type of anode BRACELET - Cylindrical TAPERED (Zinc, Galvalum, etc?)
2. Spacing interval, ft. 500 ①
3. Weight of unit anode, lbs. 80.

II. Calculate Life Expectancy of Corrosion Protection

N/A a. If platform anodes are used, annual pipe-to-electrolyte potential measurements are required.

✓ b. If pipeline anodes are used:

$LE_{p/l} = 3.82 \times 10^4 \times W^o/DIR? =$ 35.48 ①

W^o = weight of one anode, pounds = 80

D = outside diameter of pipe, inches

I = interval = length of pipe, feet (25262.5) ÷ total number of anodes (52) 485.82

R = comsumption rate, lbs./amp-yr. 26

✓ c. Is our calculated $LE_{p/l} \geq$ 20 years.

If not, one of the following is necessary:

____ 1. The company agrees to increase their cathodic protection to meet the 20-year requirement.

____ 2. Annual pipe-to-electrolyte potential measurements will be required.

F. Verify that the information given on the submitted data sheet is complete; and calculate the specific gravity on the pipeline ($SP_{p/l}$)

I. General Information pertaining to $SG_{p/l}$

a. Description of pipelines protective coating SCOTCH KOTE 212

b. Description of risers protective coating SCOTCH KOTE 212

c. Description of pre-concrete coating N/A

d. Density of concrete, lbs./cu. ft. N/A

e. Thickness of concrete, inches N/A

f. Thickness of asphalt/somastic N/A

g. Gravity or density of products:

For gas 0.60 (air = 1.0)

For ~~oil~~/condensate N/A ° API, 0.70 (water = 1.0)

h. Given $SG_{p/l}$ 1.63

II. $SG_{p/l}$

✓ a. Expoxy-coated pipelines:

$SG_{p/l} = 2.865\ W/D^2$ 1.6338

W = weight of bare pipe, lbs./ft.

D = diameter of pipe, inches

N/A b. For weighted pipelines:

$$SG_{p/l} = \frac{dc}{d} + \left[\frac{k_2}{(T-k_1)^2} \times \left(\frac{W+P}{k_3} - \frac{dc}{d}\right)\right]$$

dc = density of concrete, lbs./ft.^{3}

d = density of fluid in which pipeline is submerged, lbs./ft.^{3}

k_1, k_2, k_3 = coefficients from tables

T = thickness of concrete coating, inches

W = weight of bare pipe, lbs./ft.

P = weight of double enamel coat and felt wrap, or weight of asphaltmastic coating, lbs./ft.

$SG_{p/l}$ = N/A

✓ c. Is our calculated SG = operator's given SG

1.63 = 1.63

NOTE: These values should be approximately the same. If not, resolve. If the SG is close to a value of 1, the pipeline is unacceptable and must be weighted with concrete or anchored securely to the bottom.

G. Verify the following general information:

I. Water Depth, ft. 110 (Max) 90 (Min)

II. Burial Depth, ft. 3.0

III. Maximum Operating Pressure (MOP) 1200 psig

IV. Capacity 10 MMCFD.

V. No. of lines: Existing 6 Proposed 0